CR-IR346RU Service Manual

Maintenance Utility (MU)

CR-IR346RU Service Manual – Contents

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Control Sheet

Issue date	Revision number	Reason	Pages affected
10/10/2000	00	New release (FM2887)	All pages
08/30/2001	01	Revisions associated with release of version A05 (FM3058)	All pages

1. Overview of RU Service Utility

1.1 Features

■ Improved Ease of Maintenance

Ease of maintenance is improved in the following points, as compared to the FCR5000 Series.

● Simplified software installations and version updates

Because of the GUI (graphical user interface) installer, software installations and version updates are simplified.

Configuration settings that must be made during installation are also stripped down to a minimum needed.

● Addition of self-diagnostics function for each board

Because self-diagnostic function is added for each board, it is easy to isolate any defective board.

Furthermore, all diagnostics items may be executed repeatedly, so that self-diagnostics can be performed for the board under its loaded condition.

● Enhanced functionality for mechanical utility

Because conveyance tests can be conducted while tracing changes in the I/O status, a point of defect or failure for mechanical control may be readily identified.

Additionally, parameters are preset for commands that activate the motors, so that operation tests can be conducted by selecting the “DRIVE” menu.

1.2 Starting and Exiting the M-Utility

CAUTIONS

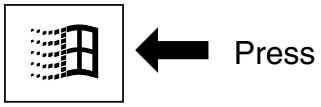
- *The M-Utility must be activated after routine conveyance is completed.*
- *After exiting the M-Utility, be sure to reboot the machine. If the machine is not rebooted, the operation of routine conveyance may not be performed normally.*

■ Starting the M-Utility

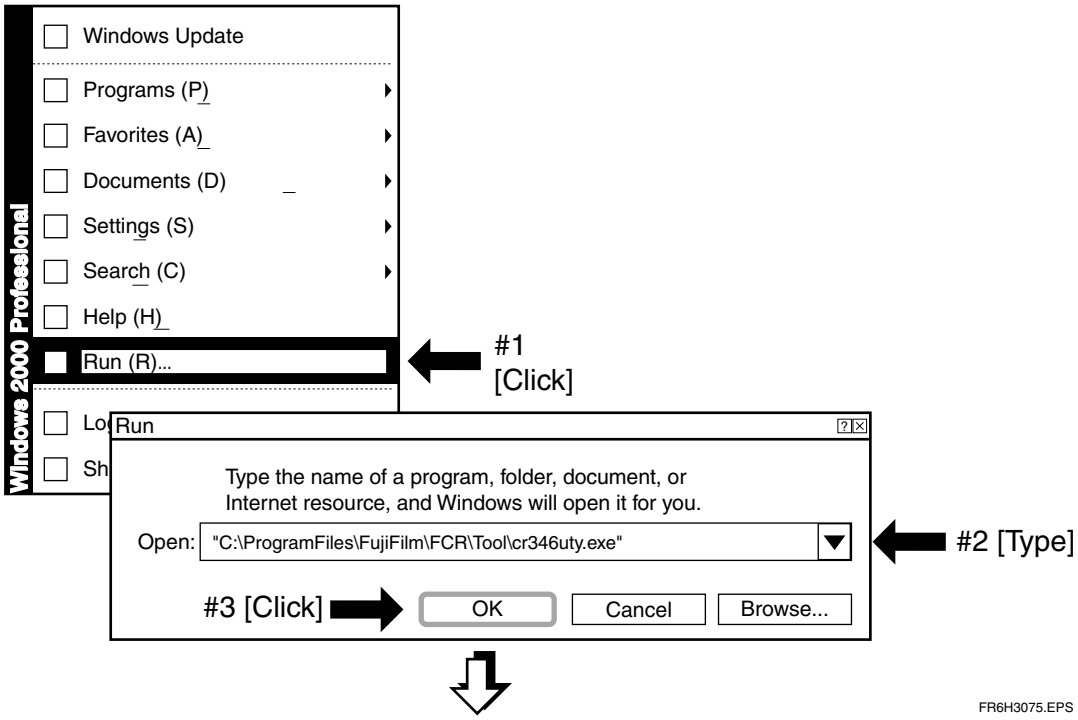
(1) Power ON the CL.

(2) Power ON the RU.

(3) Press the [Windows] key to open the Start menu of Windows.



(4) Select [Run...] from the Start menu of Windows, and type ["C:\ProgramFiles\FujiFilm\FCR\Tool\cr346uty.exe"] to open the MAINTENANCE UTILITY.



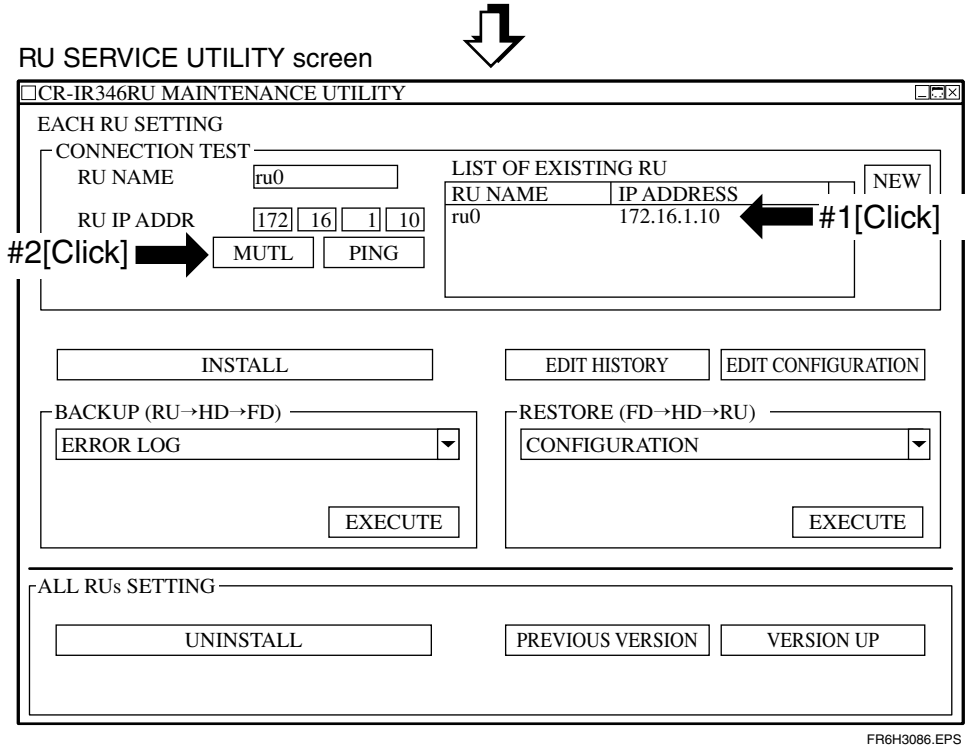
◇ ***REFERENCE*** ◇

The display of the MAINTENANCE UTILITY window differs depending on the software version.

(5) Start the M-Utility.

For A01 through A04

RU SERVICE UTILITY screen



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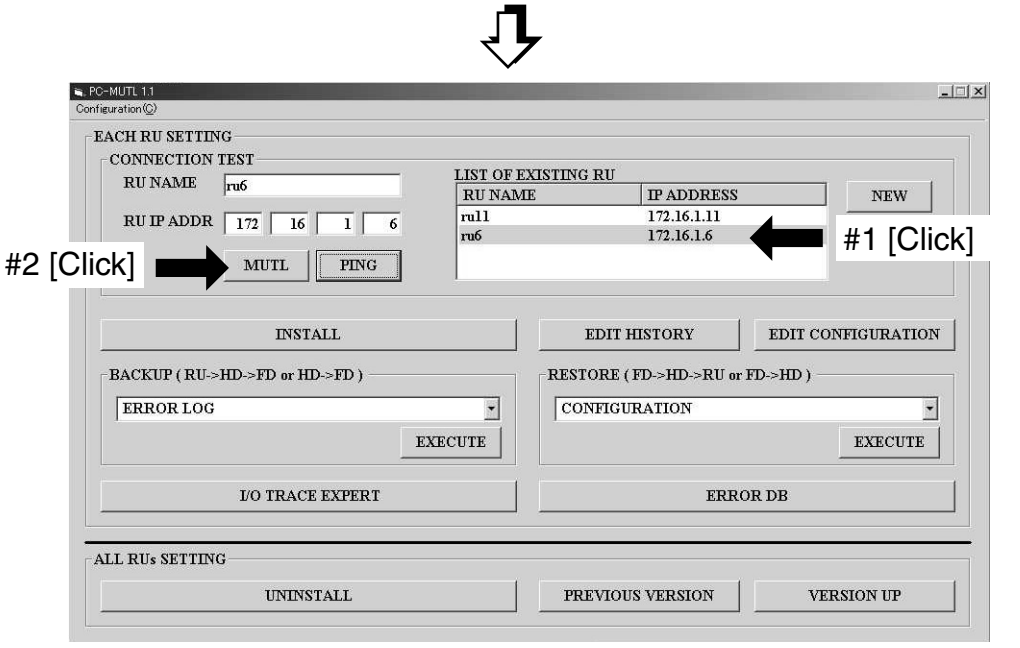
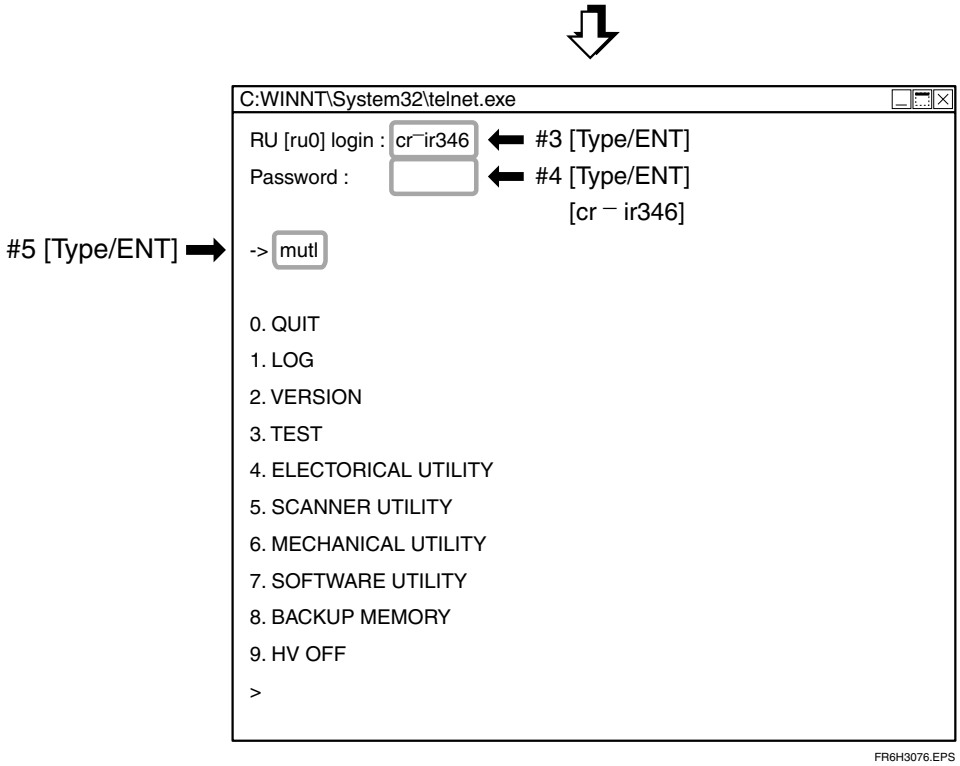
For A05 or later



FR6H3087.EPS

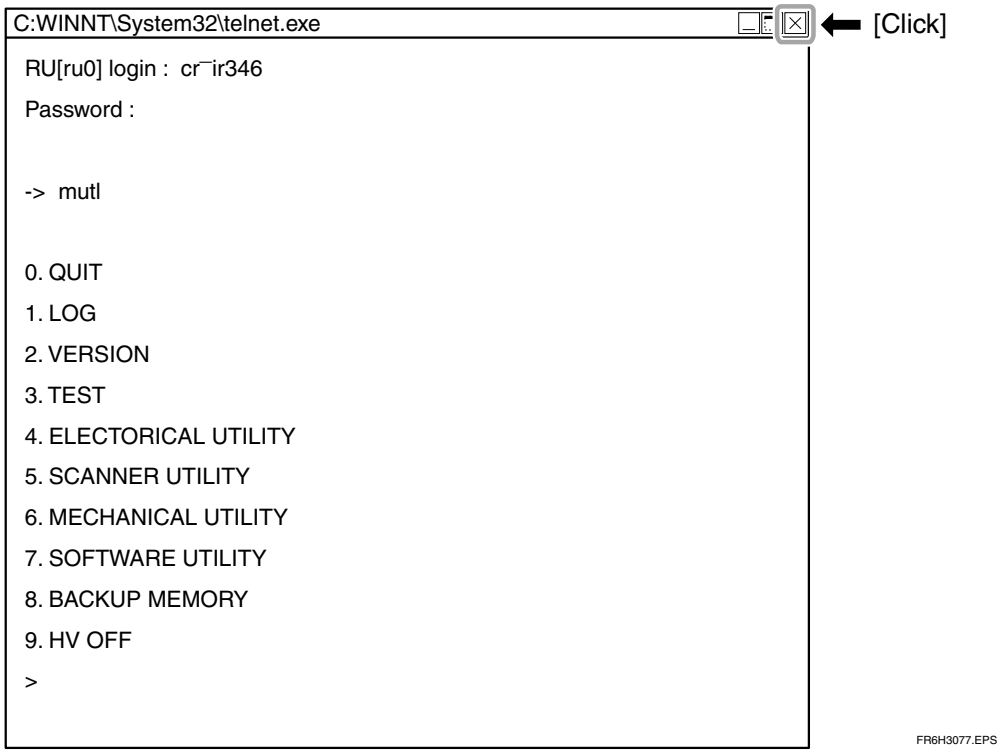


◇ *REFERENCES* ◇

- *In the field of "RU[ru0] login:", "cr-ir346" should be entered within 15 seconds. If 15 seconds have elapsed, the system returns to the "RU MAINTENANCE UTILITY" window.*
- *After having entered the "RU[ru0] login:" field, enter "Password:" within 15 seconds. If 15 seconds have passed, the system returns to the MAINTENANCE UTILITY window.*

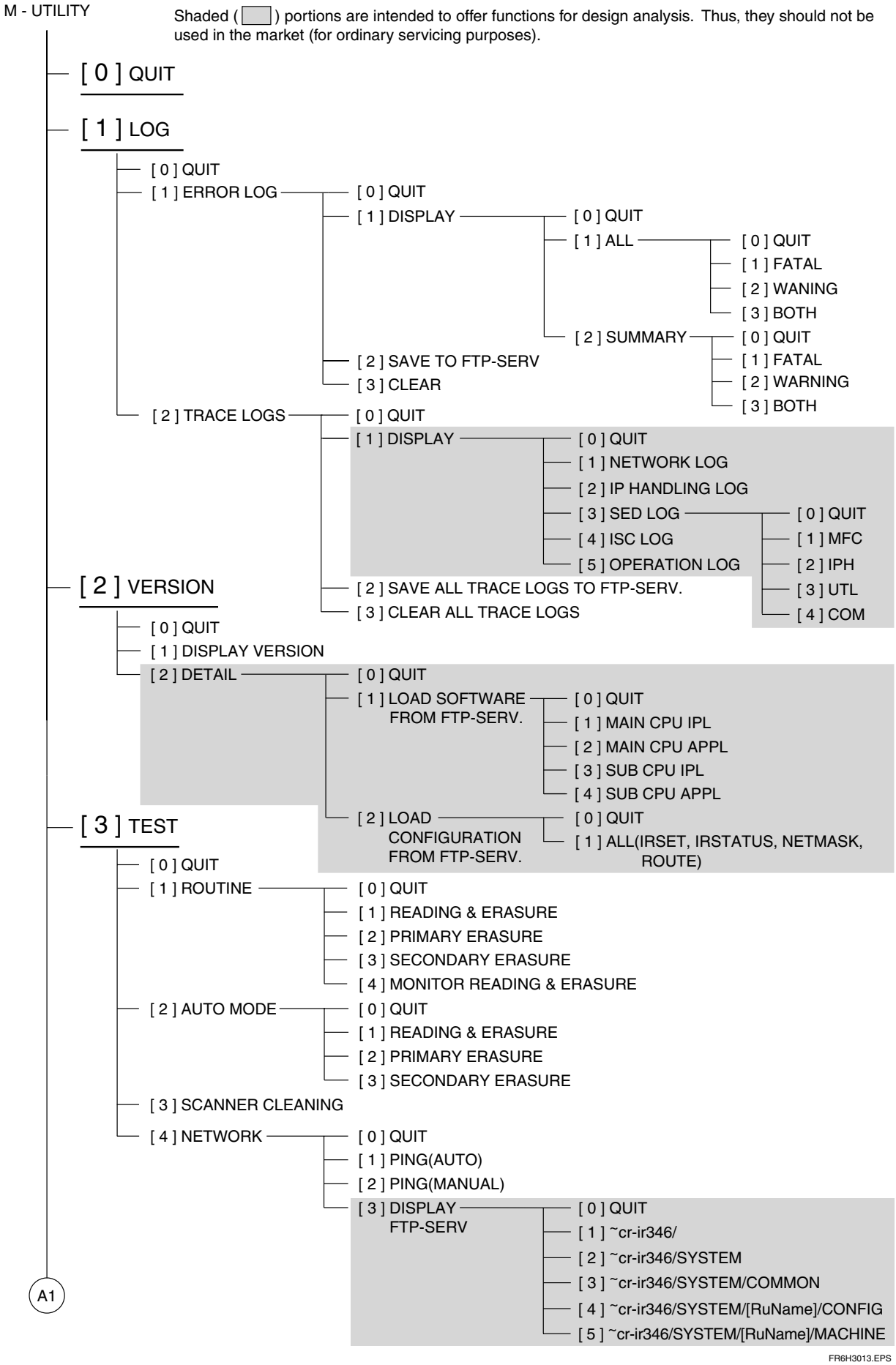
■ Exiting the M-Utility

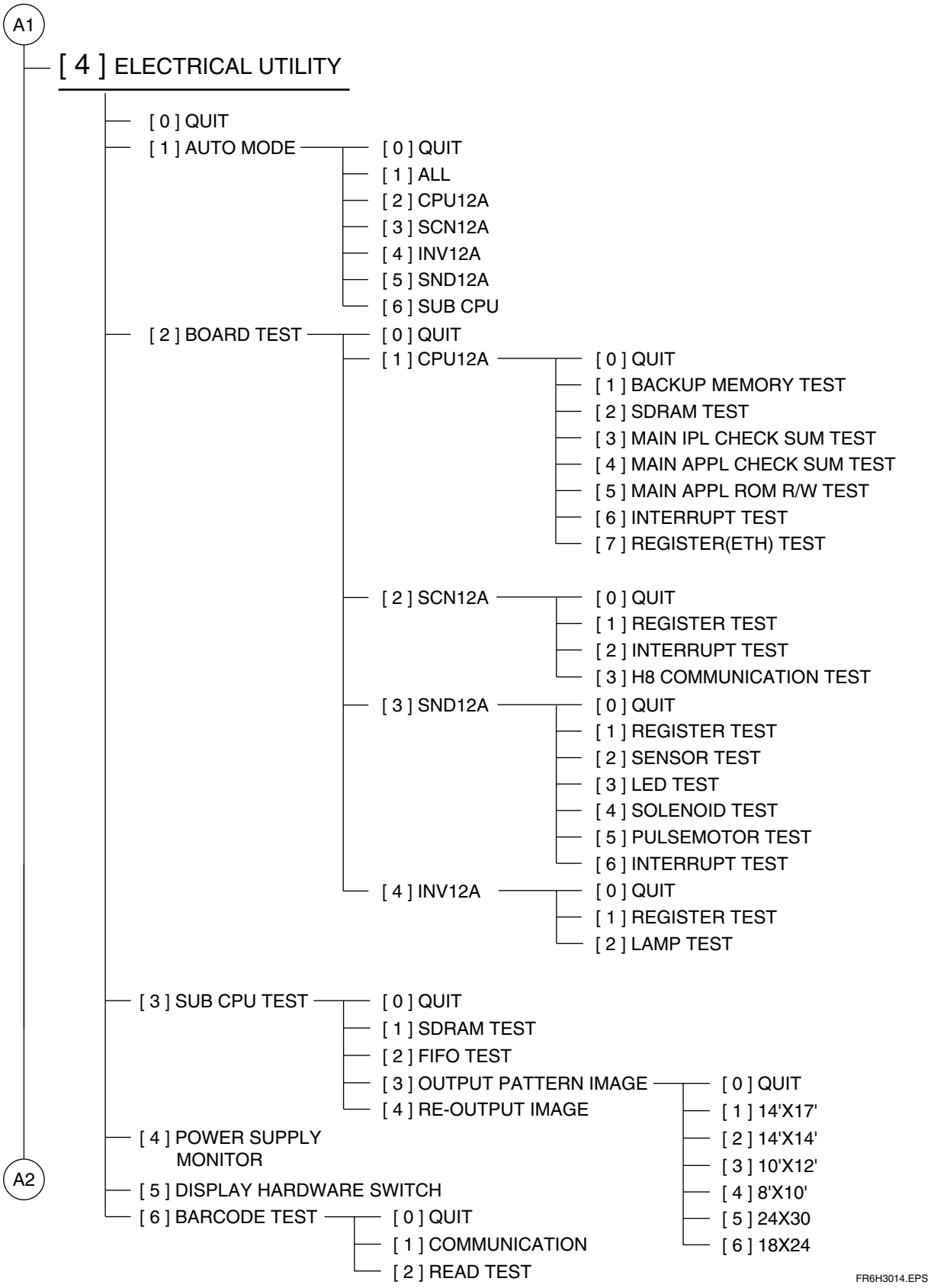
(1) Close the MAINTENANCE UTILITY window.

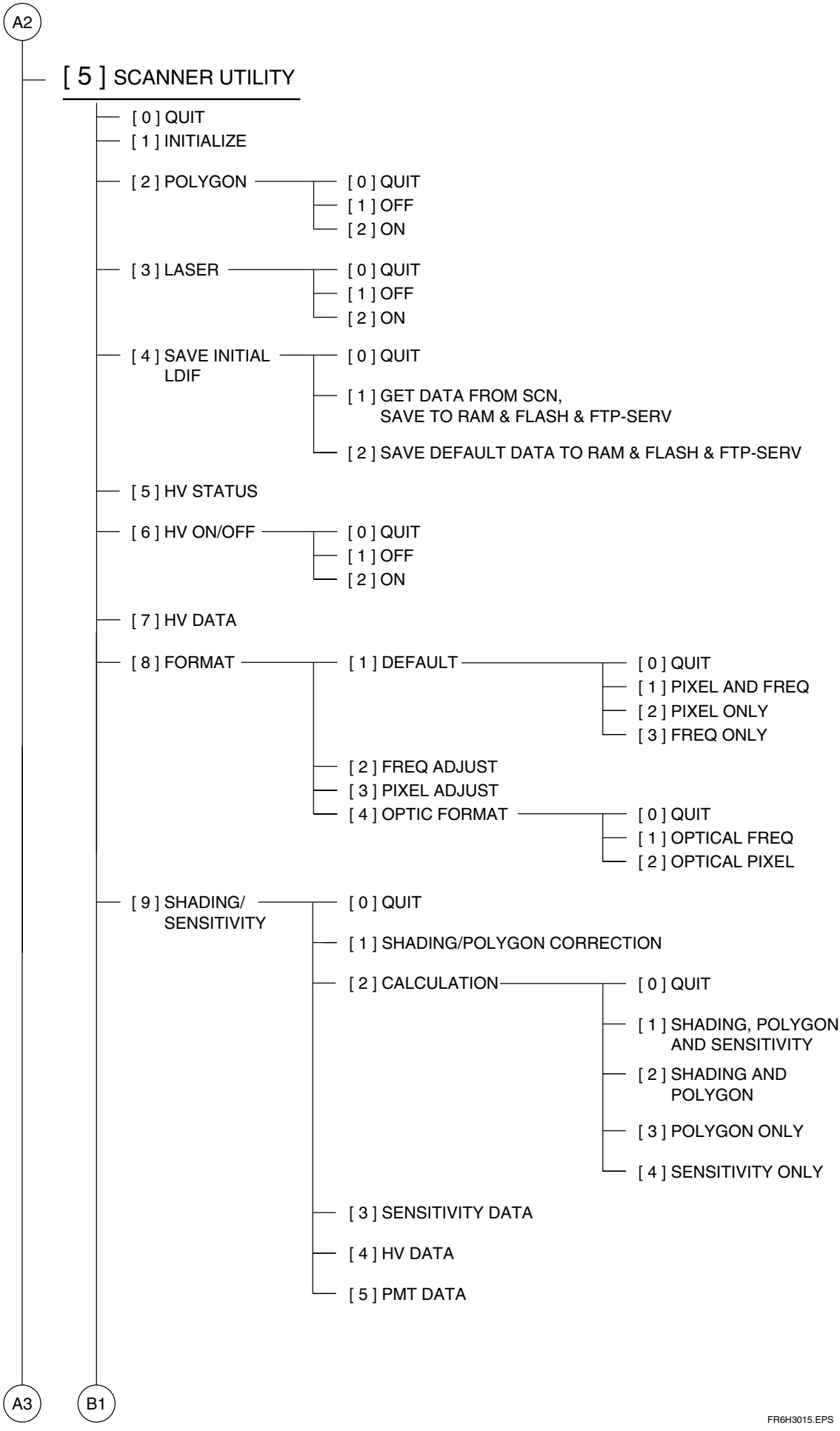


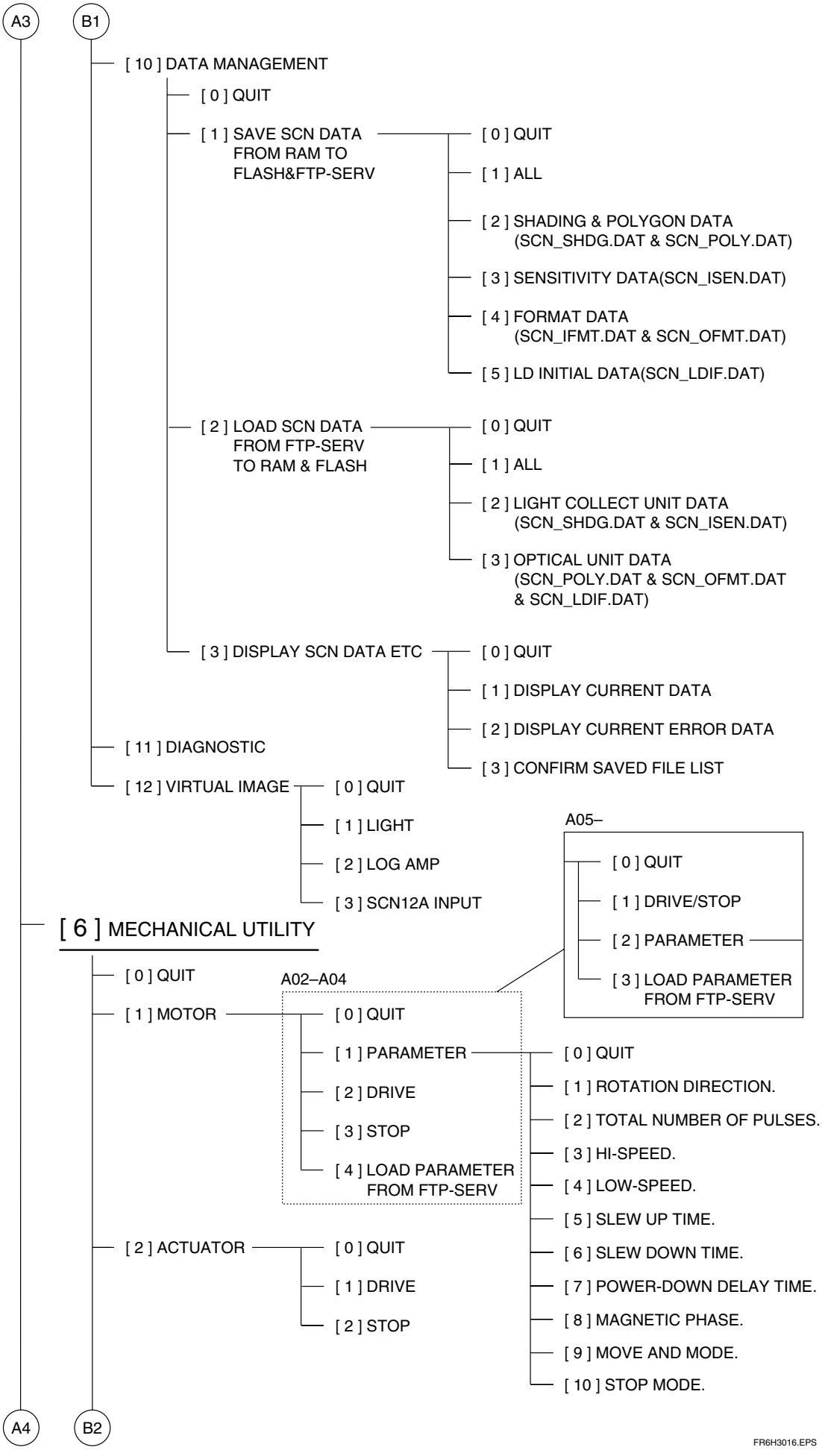
(2) Power OFF the RU.

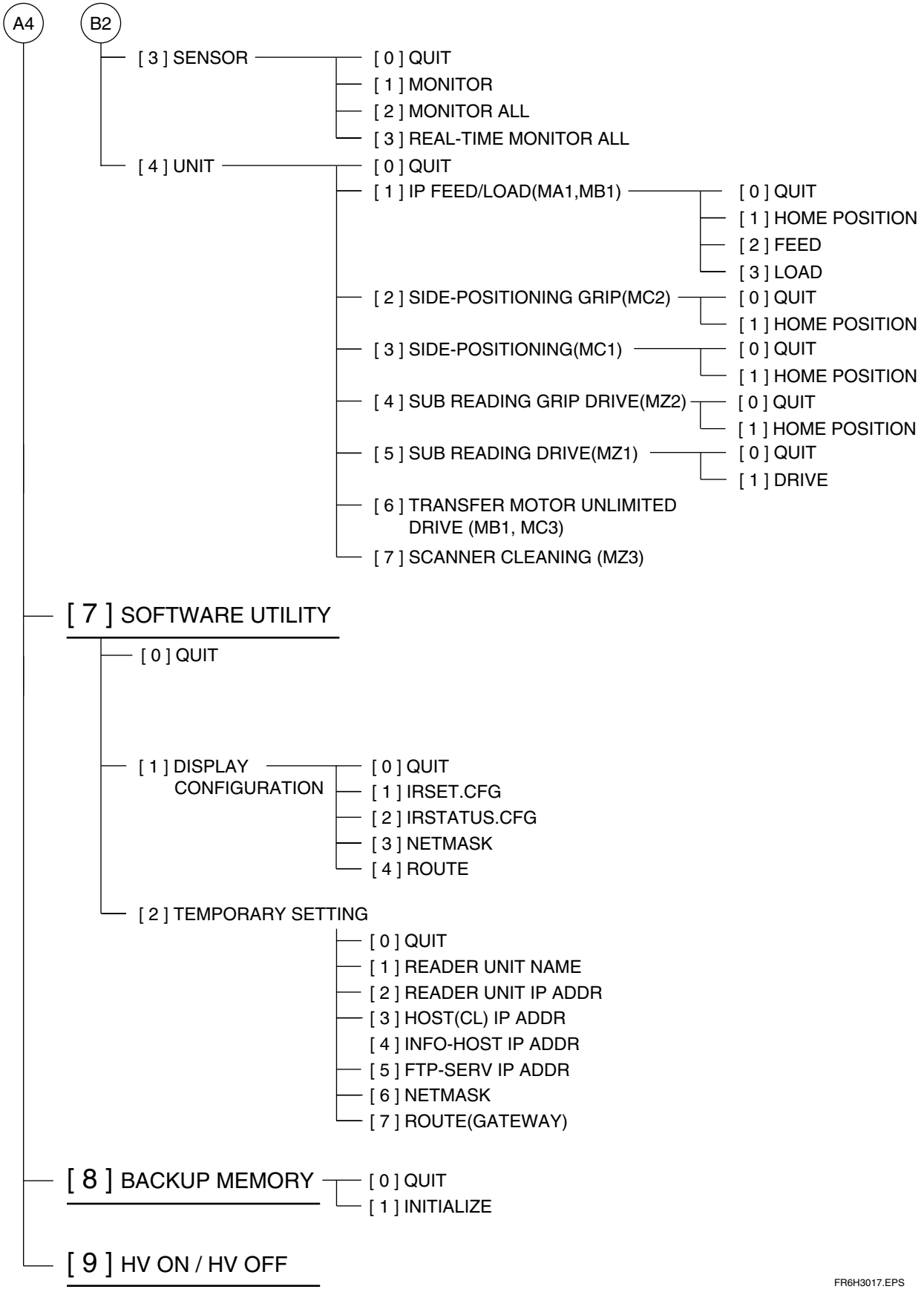
1.3 Maintenance Utility Command Tree Diagram


M - UTILITY
Shaded ( ) portions are intended to offer functions for design analysis. Thus, they should not be used in the market (for ordinary servicing purposes).
[0] QUIT
[1] LOG
[0] QUIT
[1] ERROR LOG
[0] QUIT
[1] DISPLAY
[0] QUIT
[1] ALL
[0] QUIT
[1] FATAL
[2] WANING
[3] BOTH
[2] SUMMARY
[0] QUIT
[1] FATAL
[2] WARNING
[3] BOTH
[2] SAVE TO FTP-SERV
[3] CLEAR
[2] TRACE LOGS
[0] QUIT
[1] DISPLAY
[0] QUIT
[1] NETWORK LOG
[2] IP HANDLING LOG
[3] SED LOG
[0] QUIT
[1] MFC
[2] IPH
[3] UTL
[4] COM
[4] ISC LOG
[5] OPERATION LOG
[2] SAVE ALL TRACE LOGS TO FTP-SERV.
[3] CLEAR ALL TRACE LOGS
[2] VERSION
[0] QUIT
[1] DISPLAY VERSION
[2] DETAIL
[0] QUIT
[1] LOAD SOFTWARE FROM FTP-SERV.
[0] QUIT
[1] MAIN CPU IPL
[2] MAIN CPU APPL
[3] SUB CPU IPL
[4] SUB CPU APPL
[2] LOAD CONFIGURATION FROM FTP-SERV.
[0] QUIT
[1] ALL(IRSET, IRSTATUS, NETMASK, ROUTE)
[3] TEST
[0] QUIT
[1] ROUTINE
[0] QUIT
[1] READING & ERASURE
[2] PRIMARY ERASURE
[3] SECONDARY ERASURE
[4] MONITOR READING & ERASURE
[2] AUTO MODE
[0] QUIT
[1] READING & ERASURE
[2] PRIMARY ERASURE
[3] SECONDARY ERASURE
[3] SCANNER CLEANING
[4] NETWORK
[0] QUIT
[1] PING(AUTO)
[2] PING(MANUAL)
[3] DISPLAY FTP-SERV
[0] QUIT
[1] ~cr-ir346/
[2] ~cr-ir346/SYSTEM
[3] ~cr-ir346/SYSTEM/COMMON
[4] ~cr-ir346/SYSTEM/[RuName]/CONFIG
[5] ~cr-ir346/SYSTEM/[RuName]/MACHINE
A1
FR6H3013.EPS


A1
[4] ELECTRICAL UTILITY
[0] QUIT
[1] AUTO MODE
[0] QUIT
[1] ALL
[2] CPU12A
[3] SCN12A
[4] INV12A
[5] SND12A
[6] SUB CPU
[2] BOARD TEST
[0] QUIT
[1] CPU12A
[0] QUIT
[1] BACKUP MEMORY TEST
[2] SDRAM TEST
[3] MAIN IPL CHECK SUM TEST
[4] MAIN APPL CHECK SUM TEST
[5] MAIN APPL ROM R/W TEST
[6] INTERRUPT TEST
[7] REGISTER(ETH) TEST
[2] SCN12A
[0] QUIT
[1] REGISTER TEST
[2] INTERRUPT TEST
[3] H8 COMMUNICATION TEST
[3] SND12A
[0] QUIT
[1] REGISTER TEST
[2] SENSOR TEST
[3] LED TEST
[4] SOLENOID TEST
[5] PULSEMOTOR TEST
[6] INTERRUPT TEST
[4] INV12A
[0] QUIT
[1] REGISTER TEST
[2] LAMP TEST
[3] SUB CPU TEST
[0] QUIT
[1] SDRAM TEST
[2] FIFO TEST
[3] OUTPUT PATTERN IMAGE
[0] QUIT
[1] 14'X17'
[2] 14'X14'
[3] 10'X12'
[4] 8'X10'
[5] 24X30
[6] 18X24
[4] RE-OUTPUT IMAGE
[4] POWER SUPPLY MONITOR
A2
[5] DISPLAY HARDWARE SWITCH
[6] BARCODE TEST
[0] QUIT
[1] COMMUNICATION
[2] READ TEST
FR6H3014.EPS


A2
[5] SCANNER UTILITY
[0] QUIT
[1] INITIALIZE
[2] POLYGON
[0] QUIT
[1] OFF
[2] ON
[3] LASER
[0] QUIT
[1] OFF
[2] ON
[4] SAVE INITIAL LDIF
[0] QUIT
[1] GET DATA FROM SCN, SAVE TO RAM & FLASH & FTP-SERV
[2] SAVE DEFAULT DATA TO RAM & FLASH & FTP-SERV
[5] HV STATUS
[6] HV ON/OFF
[0] QUIT
[1] OFF
[2] ON
[7] HV DATA
[8] FORMAT
[1] DEFAULT
[0] QUIT
[1] PIXEL AND FREQ
[2] PIXEL ONLY
[3] FREQ ONLY
[2] FREQ ADJUST
[3] PIXEL ADJUST
[4] OPTIC FORMAT
[0] QUIT
[1] OPTICAL FREQ
[2] OPTICAL PIXEL
[9] SHADING/ SENSITIVITY
[0] QUIT
[1] SHADING/POLYGON CORRECTION
[2] CALCULATION
[0] QUIT
[1] SHADING, POLYGON AND SENSITIVITY
[2] SHADING AND POLYGON
[3] POLYGON ONLY
[4] SENSITIVITY ONLY
[3] SENSITIVITY DATA
[4] HV DATA
[5] PMT DATA
A3
B1
FR6H3015.EPS


A3
B1
[10] DATA MANAGEMENT
[0] QUIT
[1] SAVE SCN DATA FROM RAM TO FLASH&FTP-SERV
[0] QUIT
[1] ALL
[2] SHADING & POLYGON DATA (SCN_SHDG.DAT & SCN_POLY.DAT)
[3] SENSITIVITY DATA(SCN_ISEN.DAT)
[4] FORMAT DATA (SCN_IFMT.DAT & SCN_OFMT.DAT)
[5] LD INITIAL DATA(SCN_LDIF.DAT)
[2] LOAD SCN DATA FROM FTP-SERV TO RAM & FLASH
[0] QUIT
[1] ALL
[2] LIGHT COLLECT UNIT DATA (SCN_SHDG.DAT & SCN_ISEN.DAT)
[3] OPTICAL UNIT DATA (SCN_POLY.DAT & SCN_OFMT.DAT & SCN_LDIF.DAT)
[3] DISPLAY SCN DATA ETC
[0] QUIT
[1] DISPLAY CURRENT DATA
[2] DISPLAY CURRENT ERROR DATA
[3] CONFIRM SAVED FILE LIST
[11] DIAGNOSTIC
[12] VIRTUAL IMAGE
[0] QUIT
[1] LIGHT
[2] LOG AMP
[3] SCN12A INPUT
A05–
[0] QUIT
[1] DRIVE/STOP
[2] PARAMETER
[3] LOAD PARAMETER FROM FTP-SERV
[6] MECHANICAL UTILITY
[0] QUIT
A02–A04
[1] MOTOR
[0] QUIT
[1] PARAMETER
[0] QUIT
[1] ROTATION DIRECTION.
[2] TOTAL NUMBER OF PULSES.
[3] HI-SPEED.
[4] LOW-SPEED.
[5] SLEW UP TIME.
[6] SLEW DOWN TIME.
[7] POWER-DOWN DELAY TIME.
[8] MAGNETIC PHASE.
[9] MOVE AND MODE.
[10] STOP MODE.
[2] DRIVE
[3] STOP
[4] LOAD PARAMETER FROM FTP-SERV
[2] ACTUATOR
[0] QUIT
[1] DRIVE
[2] STOP
A4
B2
FR6H3016.EPS


A4
B2
[3] SENSOR
[0] QUIT
[1] MONITOR
[2] MONITOR ALL
[3] REAL-TIME MONITOR ALL
[4] UNIT
[0] QUIT
[1] IP FEED/LOAD(MA1,MB1)
[0] QUIT
[1] HOME POSITION
[2] FEED
[3] LOAD
[2] SIDE-POSITIONING GRIP(MC2)
[0] QUIT
[1] HOME POSITION
[3] SIDE-POSITIONING(MC1)
[0] QUIT
[1] HOME POSITION
[4] SUB READING GRIP DRIVE(MZ2)
[0] QUIT
[1] HOME POSITION
[5] SUB READING DRIVE(MZ1)
[0] QUIT
[1] DRIVE
[6] TRANSFER MOTOR UNLIMITED DRIVE (MB1, MC3)
[7] SCANNER CLEANING (MZ3)
[7] SOFTWARE UTILITY
[0] QUIT
[1] DISPLAY CONFIGURATION
[0] QUIT
[1] IRSET.CFG
[2] IRSTATUS.CFG
[3] NETMASK
[4] ROUTE
[2] TEMPORARY SETTING
[0] QUIT
[1] READER UNIT NAME
[2] READER UNIT IP ADDR
[3] HOST(CL) IP ADDR
[4] INFO-HOST IP ADDR
[5] FTP-SERV IP ADDR
[6] NETMASK
[7] ROUTE(GATEWAY)
[8] BACKUP MEMORY
[0] QUIT
[1] INITIALIZE
[9] HV ON / HV OFF

FR6H3017.EPS

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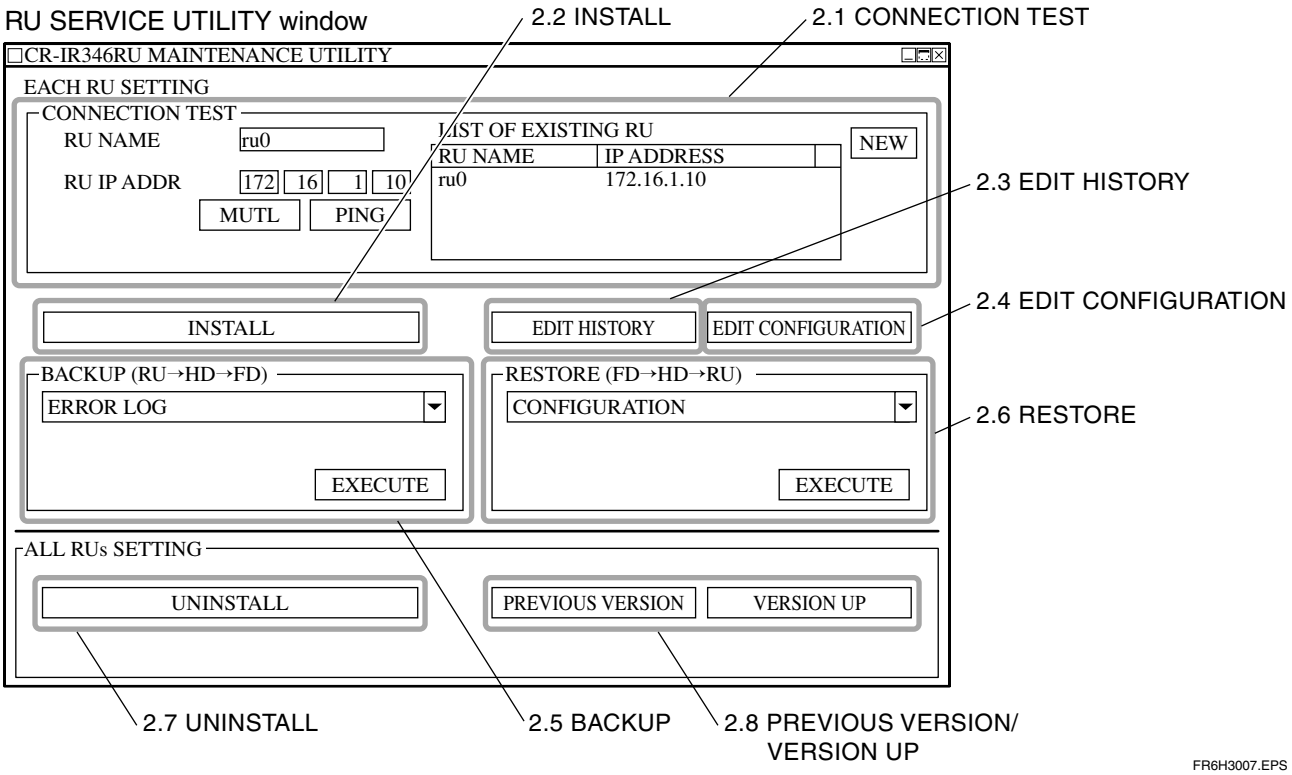
2. Functions of the MAINTENANCE UTILITY Window

◇*REFERENCE*◇

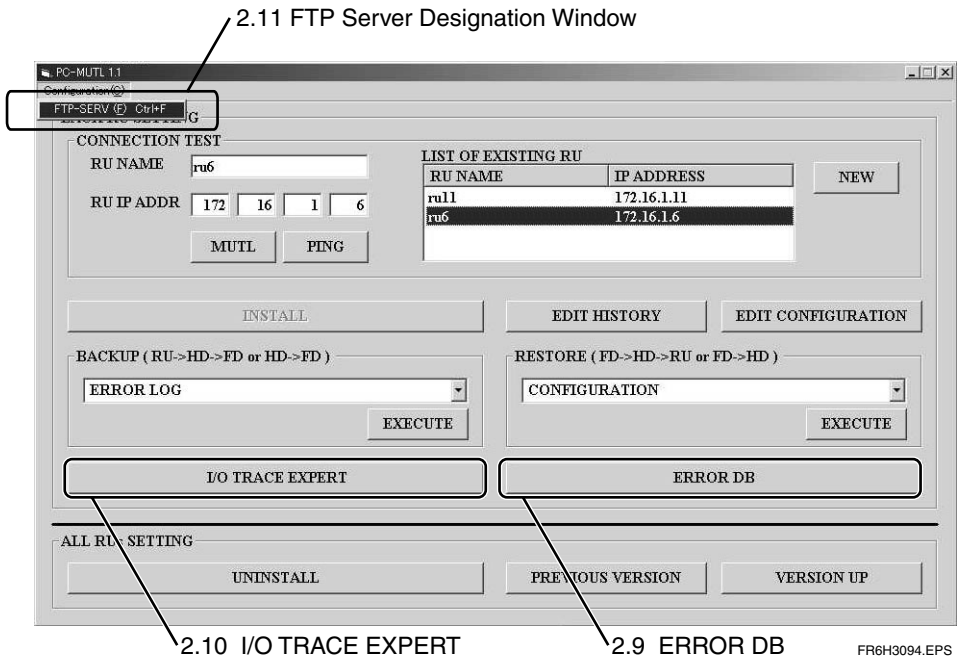
The display of the MAINTENANCE UTILITY window differs depending on the software version.

■ MAINTENANCE UTILITY Window: For version A04 or earlier



FR6H3007.EPS

■ MAINTENANCE UTILITY Window: For version A05 or later



2.1 CONNECTION TEST

Two functions are available: one is to activate a M-Utility command (“MUTL” button) and the other is to confirm a network connection with the RU (“PING” button).

◇ ***REFERENCE*** ◇

When the MAINTENANCE UTILITY window appears, a default value is displayed in “RU IP ADDR”. The M-Utility is activated to the address displayed in “RU IP ADDR”.
To change the value of “RU IP ADDR”, select a RU indicated in the “LIST OF EXISTING RU” list box.

■ Starting the M-Utility

When the “MUTL” button is clicked, the M-Utility command window opens to start the M-Utility.

☞ “1.2 Starting and Exiting the M-Utility”

■ Confirming Network Connection

When the “PING” button is clicked with “RU NAME” and “RU IP ADDR” set as appropriate, it may be checked whether a network connection is established or not.

[GOOD indication]

If messages shown below appear, the result is normal.

```
Pinging 172.16.1.10 with 32 bytes of data:

Reply from 172.16.1.10: bytes=32 time=10ms TTL=255
Reply from 172.16.1.10: bytes=32 time=10ms TTL=255
Reply from 172.16.1.10: bytes=32 time=10ms TTL=255
Reply from 172.16.1.10: bytes=32 time=10ms TTL=255

Ping statistics for 172.16.1.10:
Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 0ms, Maximum = 10ms, Average = 2ms
```

◇ *REFERENCE* ◇

Digits for XXX in TTL=”XXX” vary depending on the environment in which the command is executed.

[NG indication]

Other than the above.

2.2 INSTALL

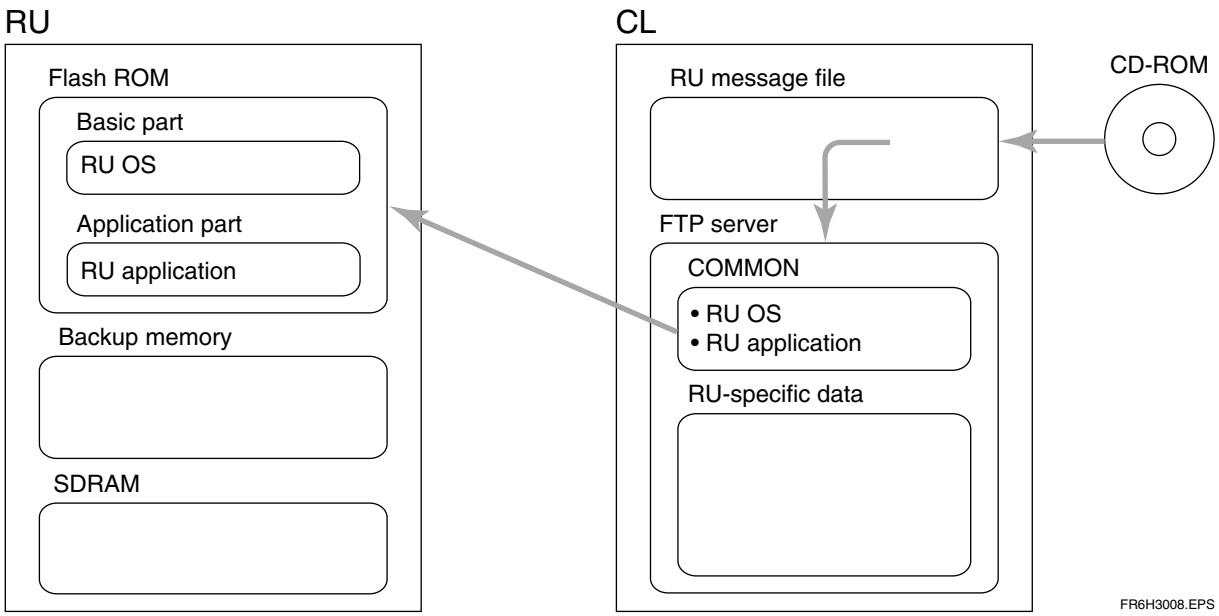
This function installs the RU software stored in the CD-ROM into the COMMON area of the FTP server.

◇ ***REFERENCE*** ◇

By resetting the RU or by powering OFF the RU and then back ON, its auto install capability allows the RU software to be installed from the FTP server of the CL into the flash ROM of the RU.

◆ ***NOTE*** ◆

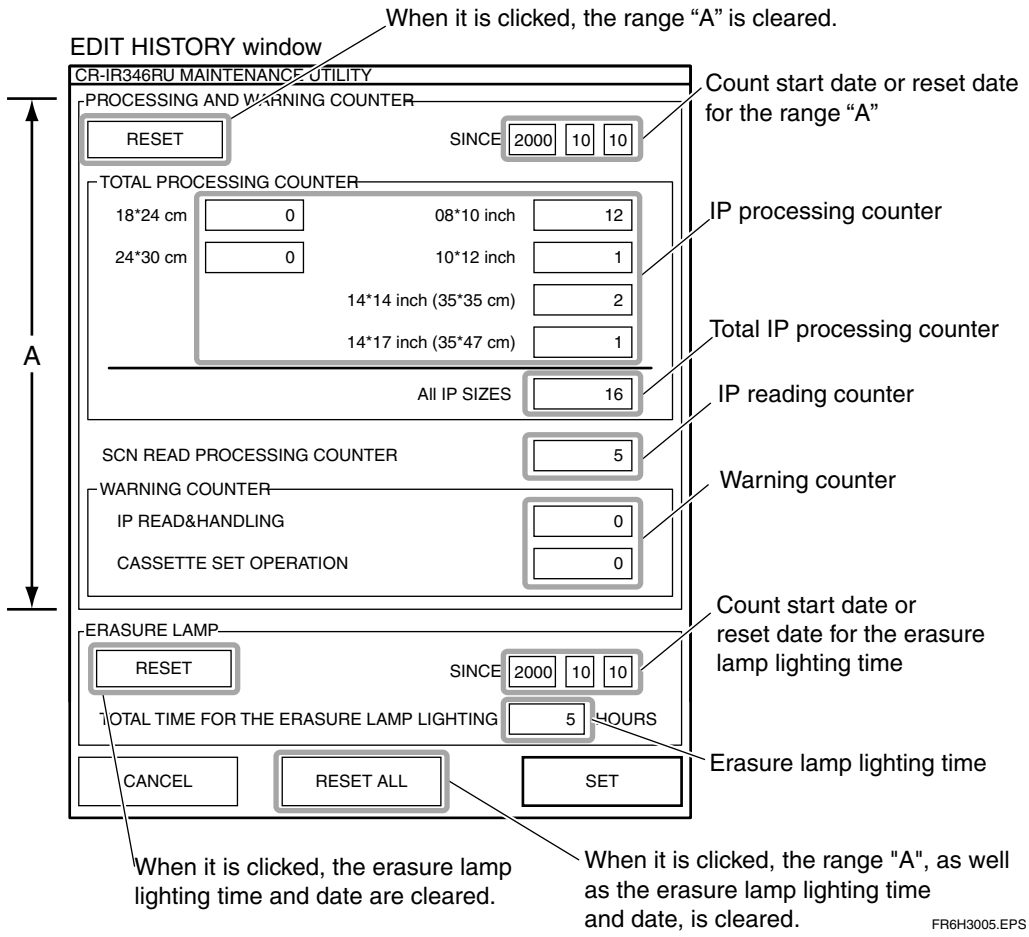
Be sure to execute "ping" to the RU to be installed to ensure that a network connection has been established.
Although RU software may be installed to the CL without a network connection established, the backup memory of the RU will not be overwritten, so that a connection with the RU cannot be established.



2.3 EDIT HISTORY

This function displays and edits the RU processing counter and erasure lamp lighting time.

■ EDIT HISTORY Window


When it is clicked, the range “A” is cleared.
EDIT HISTORY window
CR-IR346RU MAINTENANCE UTILITY
PROCESSING AND WARNING COUNTER
RESET
SINCE 2000 10 10
Count start date or reset date for the range “A”
TOTAL PROCESSING COUNTER
18*24 cm 0
24*30 cm 0
08*10 inch 12
10*12 inch 1
14*14 inch (35*35 cm) 2
14*17 inch (35*47 cm) 1
IP processing counter
All IP SIZES 16
Total IP processing counter
SCN READ PROCESSING COUNTER 5
IP reading counter
WARNING COUNTER
IP READ&HANDLING 0
CASSETTE SET OPERATION 0
Warning counter
A
ERASURE LAMP
RESET
SINCE 2000 10 10
Count start date or reset date for the erasure lamp lighting time
TOTAL TIME FOR THE ERASURE LAMP LIGHTING 5 HOURS
Erasure lamp lighting time
CANCEL
RESET ALL
SET
When it is clicked, the erasure lamp lighting time and date are cleared.
When it is clicked, the range "A", as well as the erasure lamp lighting time and date, is cleared.
FR6H3005.EPS

● IP processing counter

Indicates the number of IPs that have undergone routine reading, primary erasure, and secondary erasure, on an IP size-by-size basis.

● IP reading counter

Indicates the number of IP reading operations performed for routine reading and primary erasure.

● Warning counter

Indicates the number of events that have not been processed due to occurrence of error (warning level).

◇ *REFERENCE* ◇

Values in the fields displayed on the “EDIT HISTORY” window represent cumulative values starting from the count start date or the date when the values are cleared (“SINCE” date).

2.4 EDIT CONFIGURATION

This function sets up a portion of the RU configuration information.

■ EDIT CONFIGURATION Window

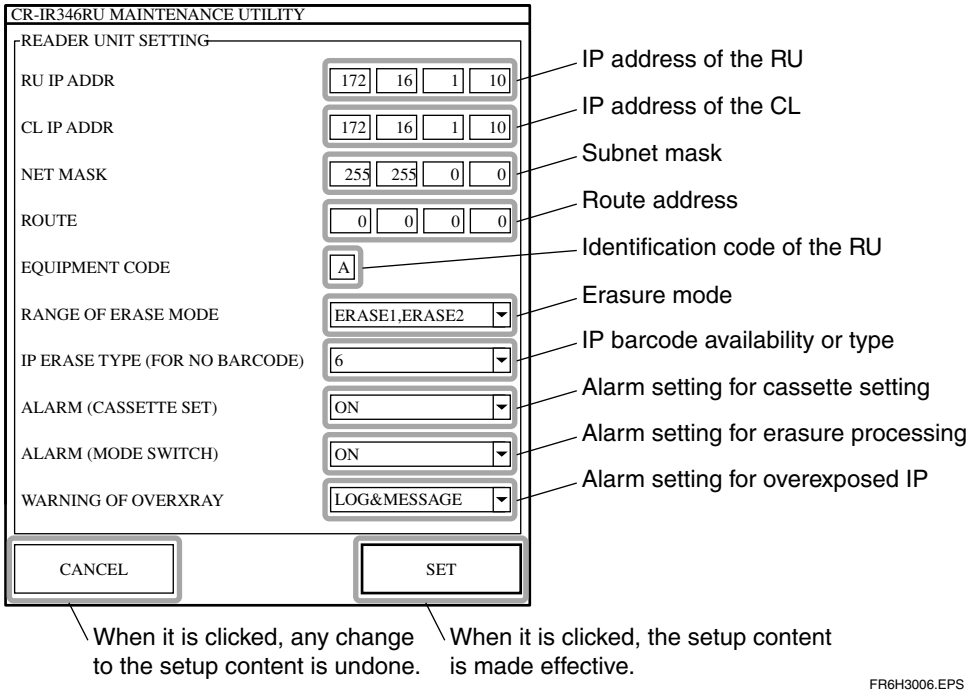
◆ *NOTE* ◆

When the setting is changed on the EDIT CONFIGURATION window, only the configuration information for the FTP server is updated, but the configuration information for the RU is not updated. To make the update effective, it is necessary to reboot the RU or download the configuration information by use of the M-Utility.
To make the update effective, it is necessary to reboot the RU.

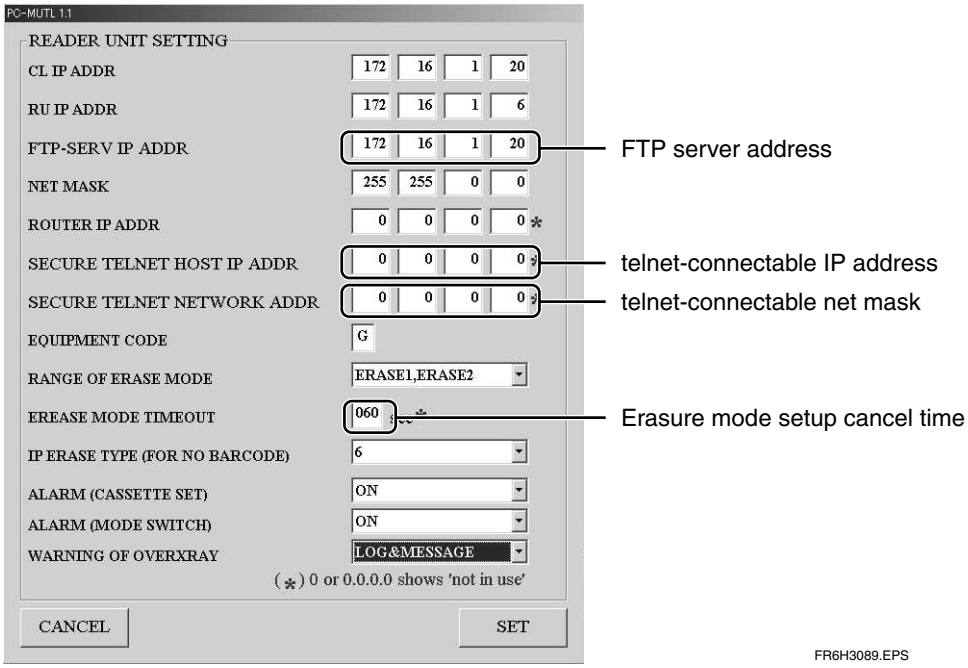
◇*REFERENCE*◇

The display of the EDIT CONFIGURATION window differs depending on the software version

For A01 through A04



For A05 or later (additional setup items added to version A05 or later)

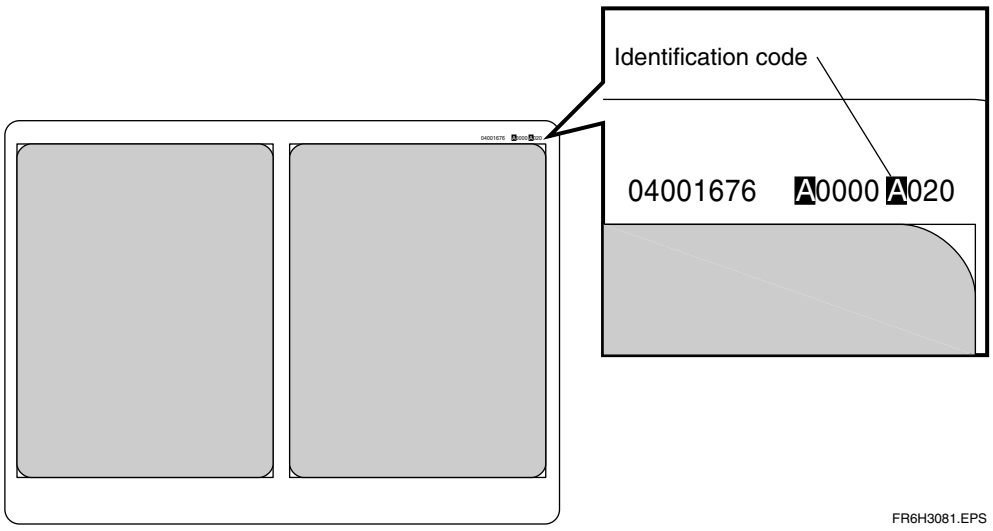

PC-MUTL 1.1
READER UNIT SETTING
CL IP ADDR 172 16 1 20
RU IP ADDR 172 16 1 6
FTP-SERV IP ADDR 172 16 1 20
NET MASK 255 255 0 0
ROUTER IP ADDR 0 0 0 0 *
SECURE TELNET HOST IP ADDR 0 0 0 0 *
SECURE TELNET NETWORK ADDR 0 0 0 0 *
EQUIPMENT CODE G
RANGE OF ERASE MODE ERASE1,ERASE2
EREASE MODE TIMEOUT 060 sec *
IP ERASE TYPE (FOR NO BARCODE) 6
ALARM (CASSETTE SET) ON
ALARM (MODE SWITCH) ON
WARNING OF OVERXRAY LOG&MESSAGE
(*) 0 or 0.0.0.0 shows 'not in use'
CANCEL
SET
FTP server address
telnet-connectable IP address
telnet-connectable net mask
Erasure mode setup cancel time

FR6H3089.EPS

For A01 through A04

● Identification code of the RU

When multiple units of the RU are used, an identification code (alphanumerical characters) is set to allow the user to confirm, on the film, the RU that has performed image reading.



● Erasure mode

An erasure mode that is selectable by the erasure mode SW of the RU is set.

Example) When “ERASE1, ERASE2” is set:

By pressing the erasure mode SW, either primary erasure or secondary erasure may be selected.

● IP barcode availability or type

The erasure time for “no barcode” is set.

- “6” (default): Erase with an erasure time for type 6 IP.
- “5, 6”: Erase with an erasure time for type 5 IP.

◆ *NOTES* ◆

- *If type 5 IP is processed with “IP barcode availability or type” set to “6” (default), erasure failure will occur.*
- *When “IP barcode availability or type” is set to “5, 6”, type 6 IP takes as much erasure time as type 5 IP, so that the resulting processing time for type 6 IP becomes longer than specified.*

● Alarm setting for cassette setting

A setting is made to determine whether or not to sound an alarm when a cassette is set under condition where the CL screen does not allow cassette processing.

- “ON” (default): An alarm is sounded.
- “OFF”: An alarm is not sounded.

● Alarm setting for erasure processing

A setting is made to determine whether or not to sound an alarm when the erasure SW of the RU is pressed.

- “ON” (default): An alarm is sounded.
- “OFF”: An alarm is not sounded.

● Alarm setting for overexposed IP

A setting is made to determine whether or not to generate a log and/or display a message, when an overexposed IP is processed.

- “LOG&MESSAGE” (default): A log is generated and a message is displayed.
- “LOG”: A log is generated and an alarm is not sounded.
- “NONE”: A log is not generated and an alarm is not sounded.

For A05 or later

● FTP server address

The IP address of the FTP server is set.

● telnet-connectable IP address

The IP address that permits a connection with the RU via telnet is set.

When it is set to “0.0.0.0”, a connection can be established regardless of the IP address.

● telnet-connectable net mask

The network address that permits a connection with the RU via telnet is set.

When it is set to “0.0.0.0”, a connection can be established from any network.

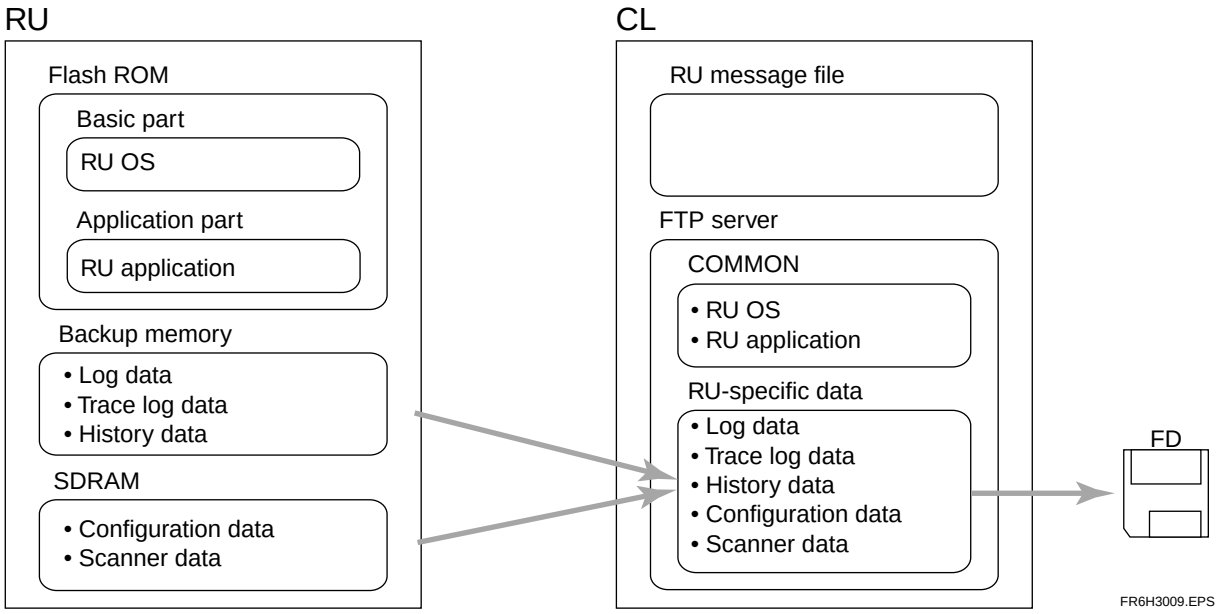
● Erasure mode setup cancel time

The time, from changing the erasure mode setting to returning to the default erasure mode, is set in seconds.

When it is set to “0”, the setting remains changed.

2.5 BACKUP

This function copies the configuration information and error log data from the RU to the FTP server, and from the FTP server to a floppy diskette (FD).



■ Backup Items

● "ERROR LOG":

Log data is backed up.

● "CONFIGURATION":

Configuration data is backed up.

● "TRACE LOG":

Trace log data (design analysis information) is backed up.

● "HISTORY LOG":

History data (processing counter and erasure lamp lighting time) is backed up.

● "SCN ALL DATA":

All scanner data is backed up.

● "SCN LIGHT COLLECTING DATA":

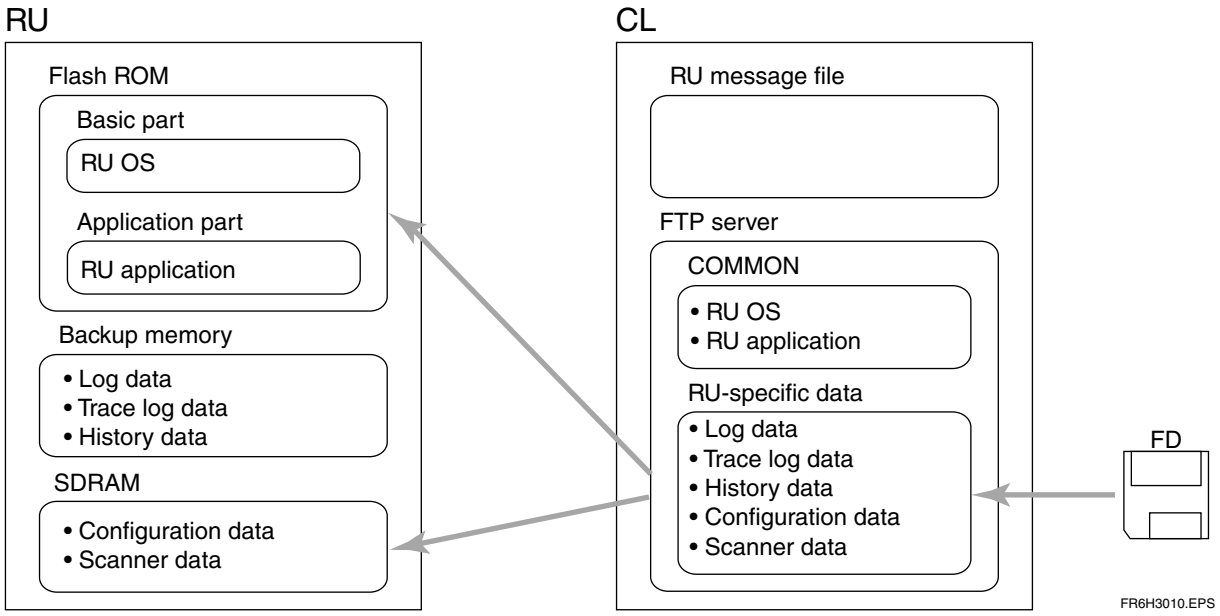
Of the scanner data, light-collecting data is backed up.

● "SCN OPTICAL DATA":

Of the scanner data, optical data is backed up.

2.6 RESTORE

This function installs the configuration information and machine-specific data from the floppy diskette (FD) into the RU-specific data area of the FTP server and copies it from the FTP server to the flash ROM of the RU.



■ Restore Items

● "CONFIGURATION":

Configuration data is restored.

● "HISTORY LOG":

History data (processing counter and erasure lamp lighting time) is restored.

● "SCN ALL DATA":

All scanner data is restored.

● "SCN LIGHT COLLECTING DATA":

Of the scanner data, light-collecting data is restored.

● "SCN OPTICAL DATA":

Of the scanner data, optical data is restored.

2.7 UNINSTALL

This function removes the RU software from the FTP server.

Once the removal is completed, the “LIST OF EXISTING RU” list box and “RU IP ADDR” become empty.

◆ ***NOTE*** ◆

Be sure to run INSTALL after UNINSTALL is executed.

2.8 PREVIOUS VERSION/VERSION UP

This function puts the RU software back to its previous version, or updates its version.

2.9 ERROR DB

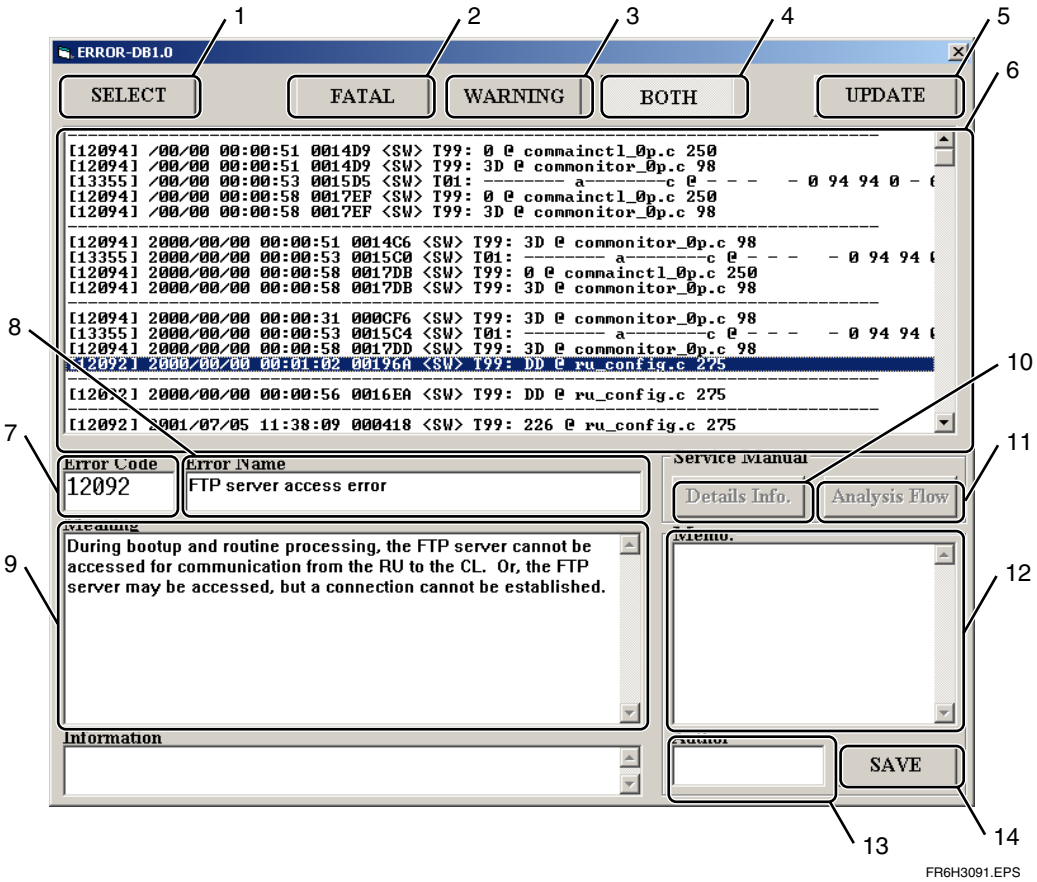
This function enables you to check error names and occurrence conditions by referring to the error log data of the RU. It also allows for adding memos to error messages and viewing the detail information and analysis flows.

CAUTIONS

- *Do not install software programs, such as Adobe Acrobat Reader 4.0, on the PC that is used as the CL or FTP server. If such programs are installed, the CL or FTP server may not function normally.*
- *To view the analysis flow, it is necessary to install Adobe Acrobat Reader 4.0 (or Adobe Acrobat 4.0) or later and analysis flow PDF data. Be sure to install them on the serviceman's PC.*
- *It is a new feature added to software version A05 or later.*

To use ERROR DB on the CL

■ ERROR-DB Window


1
2
3
4
5
6
7
8
9
10
11
12
13
14
ERROR-DB1.0
SELECT
FATAL
WARNING
BOTH
UPDATE
[12094] /00/00 00:00:51 0014D9 <SW> I99: 0 @ commainctl_0p.c 250
[12094] /00/00 00:00:51 0014D9 <SW> I99: 3D @ commonitor_0p.c 98
[13355] /00/00 00:00:53 0015D5 <SW> I01: -------- a--------c @ - - -
[12094] /00/00 00:00:58 0017EF <SW> I99: 0 @ commainctl_0p.c 250
[12094] /00/00 00:00:58 0017EF <SW> I99: 3D @ commonitor_0p.c 98
[12094] 2000/00/00 00:00:51 0014C6 <SW> I99: 3D @ commonitor_0p.c 98
[13355] 2000/00/00 00:00:53 0015C0 <SW> I01: -------- a--------c @ - - -
[12094] 2000/00/00 00:00:58 0017DB <SW> I99: 0 @ commainctl_0p.c 250
[12094] 2000/00/00 00:00:58 0017DB <SW> I99: 3D @ commonitor_0p.c 98
[12094] 2000/00/00 00:00:31 000CF6 <SW> I99: 3D @ commonitor_0p.c 98
[13355] 2000/00/00 00:00:53 0015C4 <SW> I01: -------- a--------c @ - - -
[12094] 2000/00/00 00:00:58 0017DD <SW> I99: 3D @ commonitor_0p.c 98
[12092] 2000/00/00 00:01:02 00196A <SW> I99: DD @ ru_config.c 275
[12092] 2000/00/00 00:00:56 0016EA <SW> I99: DD @ ru_config.c 275
[12092] 2001/07/05 11:38:09 000418 <SW> I99: 226 @ ru_config.c 275
Error Code
12092
Error Name
FTP server access error
Service Manual
Details Info.
Analysis Flow
During bootup and routine processing, the FTP server cannot be accessed for communication from the RU to the CL. Or, the FTP server may be accessed, but a connection cannot be established.
Information
SAVE

FR6H3091.EPS

● **1 “SELECT” button**

A error log file to be viewed is selected.

● **2 “FATAL button**

Of the error log files, only FATAL errors are displayed.

● **3 “WARNING” button**

Of the error log files, only WARNING errors are displayed.

● **4 “BOTH” button**

Both “FATAL and “WARNING” errors windows are displayed.

● **5 “UPDATE”**

The latest error log data is copied from the CPU12A board of the RU to the FTP server of the CL.

● **6 Error message list box**

The contents of the error log file selected are displayed.

● **7 “Error Code” text box**

The error code of the error message selected (highlighted) in the error message list box is displayed.

● **8 “Error Name” text box**

The error name of the error message selected (highlighted) in the error message list box is displayed.

● **9 “Meaning” text box**

The occurrence condition of the error message selected (highlighted) in the error message list box is displayed.

● **10 “Details Info.” Button**

The detail information on the error message selected (highlighted) in the error message list box is displayed.

● **11 “Analysis Flow” button**

The analysis flow for the error message selected (highlighted) in the error message list box is displayed.

● **12 “Memo.” text box**

A memo may be attached to the error message (highlighted) in the error message list box.

Up to seven memos may be entered.

● **13 “Author” text box**

The name of the person (author) who entered text in the “Memo.” text box is entered.

● **14 “SAVE” button**

The contents of “Memo.” and “Author” are saved. To delete them, erase them by use of the Delete key and press the “SAVE” button again.

2.10 I/O TRACE EXPERT

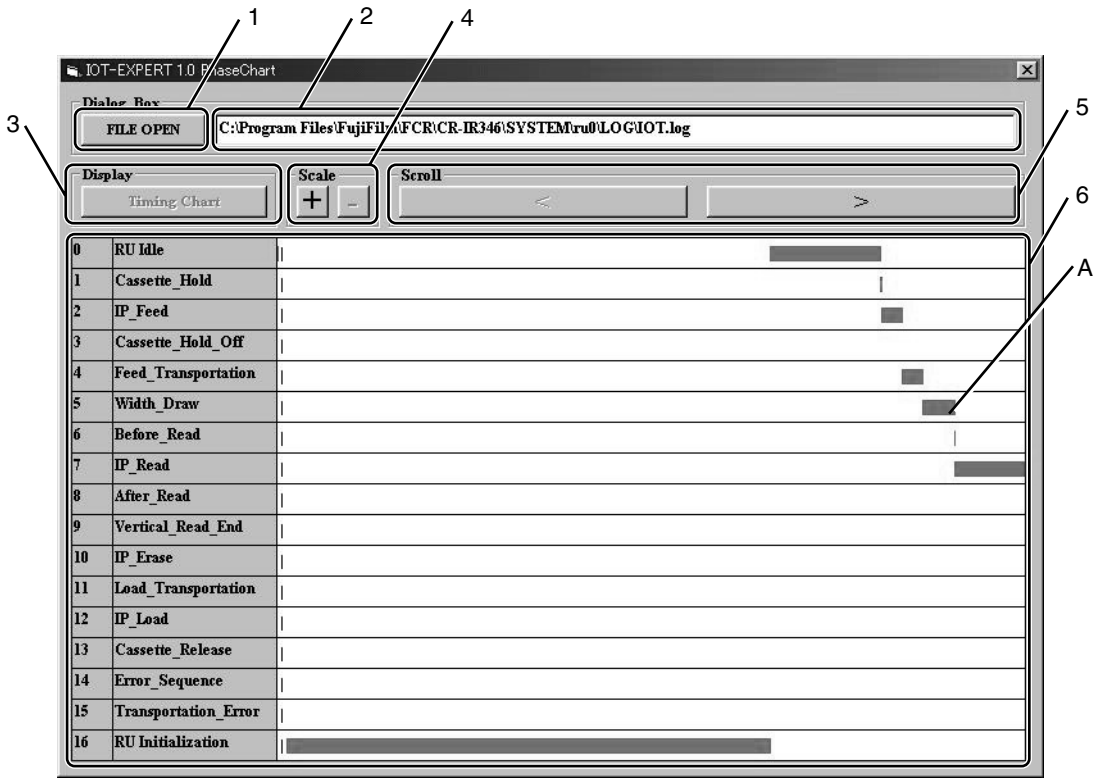
This function displays the I/O trace data in the form of phase chart or timing chart.

Note, however, that only I/O trace data may be displayed but communication-related trace data cannot be displayed.

CAUTIONS

- *It is a new feature added to software version A05 or later.*

■ PhaseChart Window



FR6H3092.EPS

● 1 “FILE OPEN” button

The file displayed in “2. File name text box” is opened.

● 2 File name text box

The complete path of the file to be opened is entered.

● 3 “Timing Chart” button

◆ NOTE ◆

Never use this button because it is reserved for future use.

● 4 “Scale” button

The display scale for the time base (horizontal axis) is changed.

● 5 “Scroll” button

The display range for the time base is shifted horizontally.

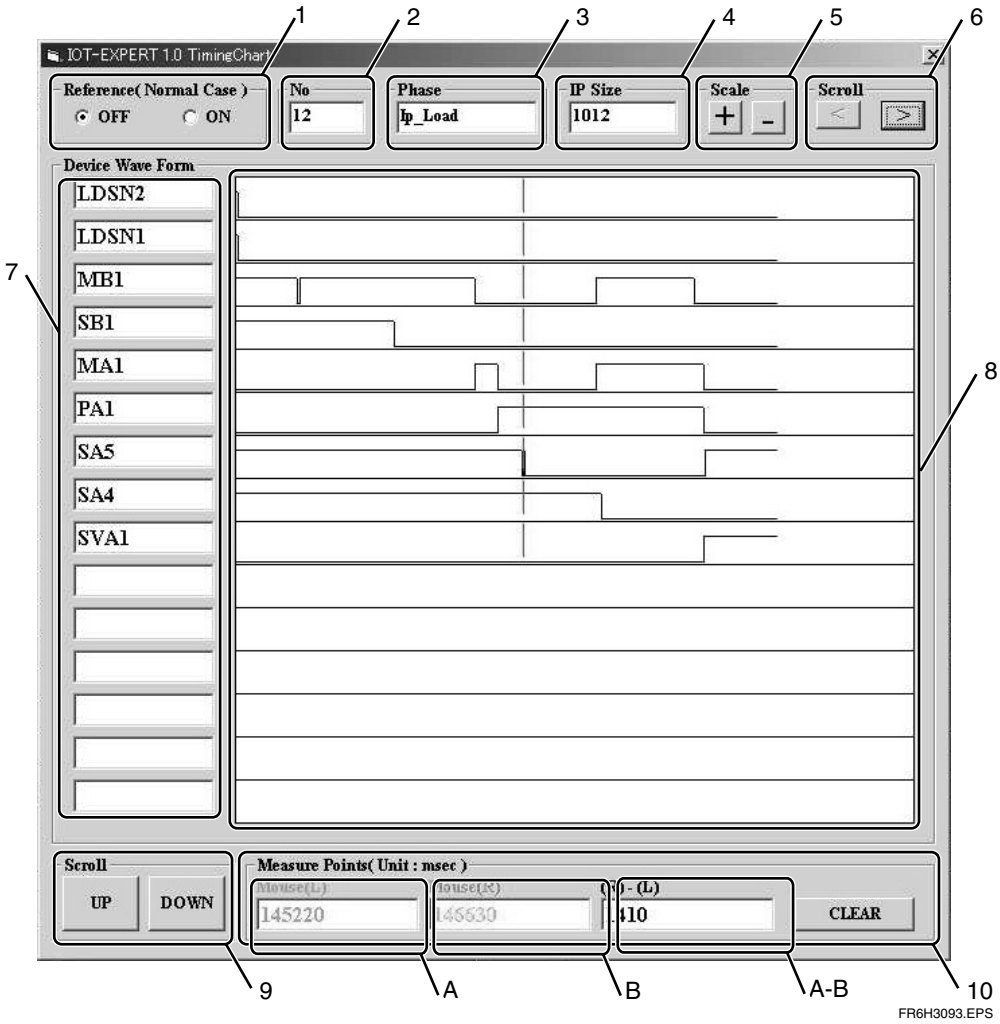
● 6 Chart display area

The phase chart is displayed with three colored bands. Meanings of the three colors are as follows.

- Green: Normal phase
- Red: Phase where an error occurred
- Light green: Location (phase) where the timing chart is displayed.

By clicking on the band (A) in the phase chart, the timing chart for that phase is displayed.

■ TimingChart Window



● 1 “Reference (Normal Case)” button

- OFF: The contents of the I/O trace log are displayed.
- ON: In addition to the contents of the I/O trace log, the timing charts for normal operation are displayed in blue color.

● 2 “No” text box

The phase number for the phase whose timing chart is displayed is indicated.

● 3 “Phase” text box

The phase name for the phase whose timing chart is displayed is indicated.

● 4 “IP Size” text box

The IP size detected when I/O trace was conducted is indicated.

● 5 “Scale” button

The display scale for the time base (horizontal axis) is changed.

● 6 “Scroll” button

The display range for the time base is shifted horizontally.

● 7 I/O name display text box

The I/O name is displayed.

● 8 Chart display area

The timing chart is displayed.

● 9 “Scroll” button

When the number of I/Os exceeds 15, the display area is shifted vertically.

● 10 “Measure Point (Unit: msec)” area

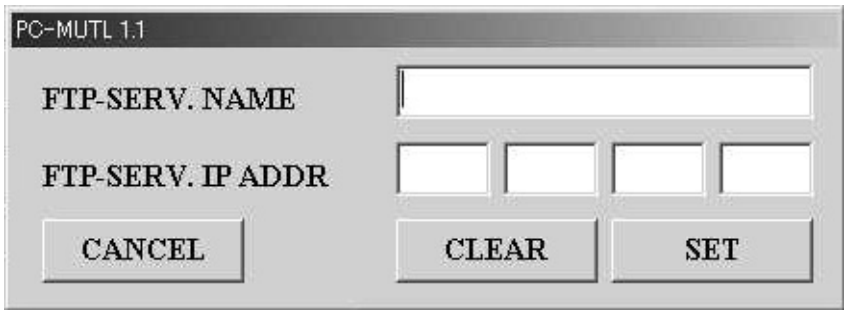
By putting the mouse pointer in the chart area and pressing the left or right button of the mouse, the following values are displayed in the A, B, and A-B fields.

- A: Elapsed time, from powering ON to the position pointed by the left-mouse pointer.
- B: Elapsed time, from powering ON to the position pointed by the right-mouse pointer.
- A-B: Difference in time between positions A and B

Note that when the “CLEAR” button is clicked, the values in the A, B, and A-B fields are all cleared.

2.11 FTP Server Designation Window

The FTP server for multiple units of RU may be managed in a centralized manner.



FR6H2558.eps

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2.12 Installing I/O Trace Log and Error DB Software

To view the I/O trace log, error DB analysis flow, or detail information, it is necessary not only to install the software to the serviceman's PC but also to install the log data and service manual PDF data as well.

Install procedures are described here.

CAUTIONS

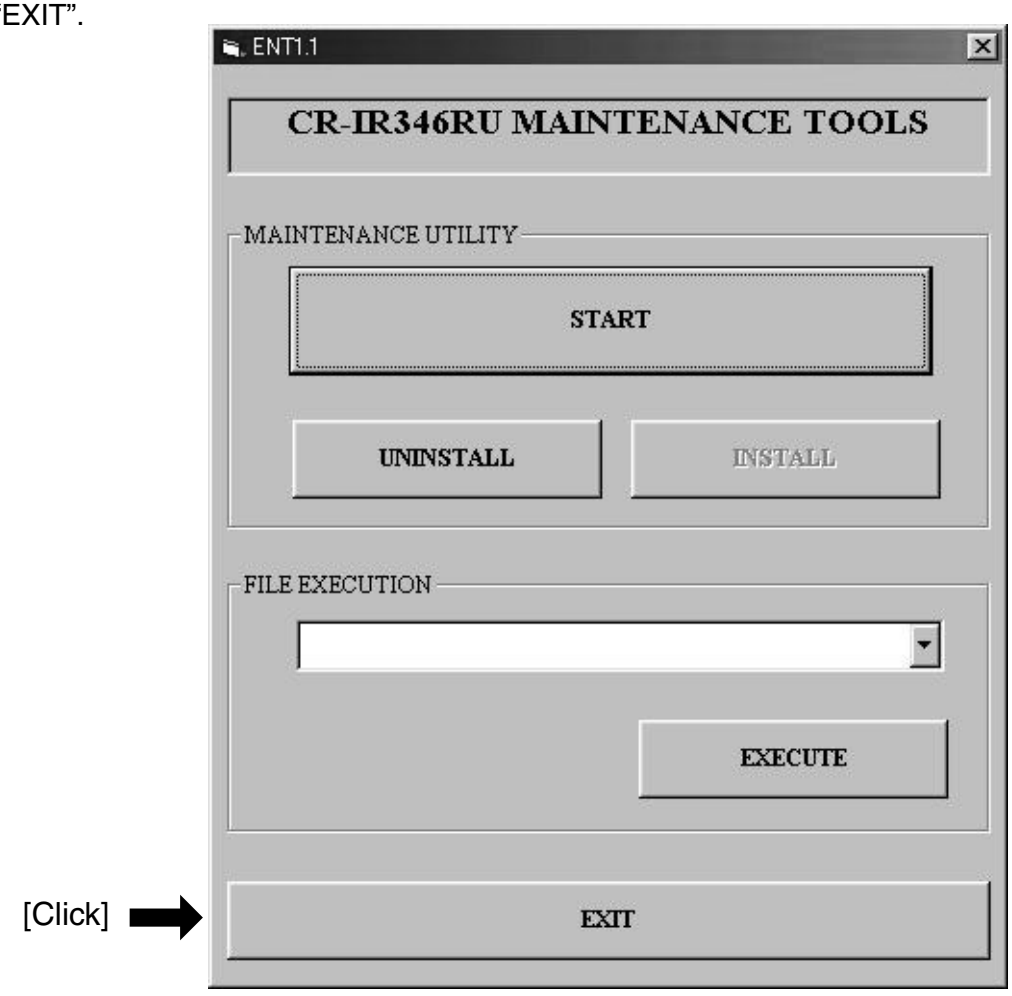
- *The serviceman's PC should run on Windows 2000 or NT.*
- *It is a new feature added to software version A05 or later.*

■ Procedure

(1) Put the CD bundled with the RU into the serviceman's PC.

The install start window opens.

(2) Click "EXIT".



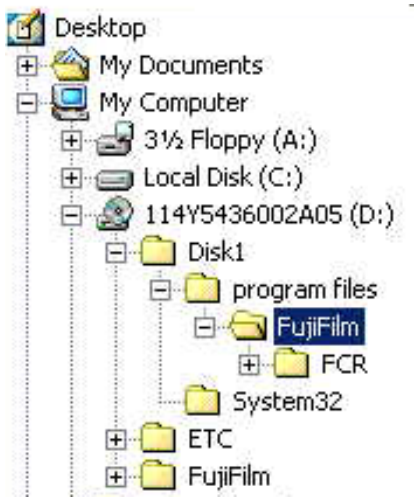
FR6H2553.EPS

(3) Start the Explorer and copy the folder named “FCR” from the CD-R onto the desktop.

(114Y5436002A05): \[Disk1]\[Program files]\[FujiFilm]\[FCR]

[Start] → [Explorer] →

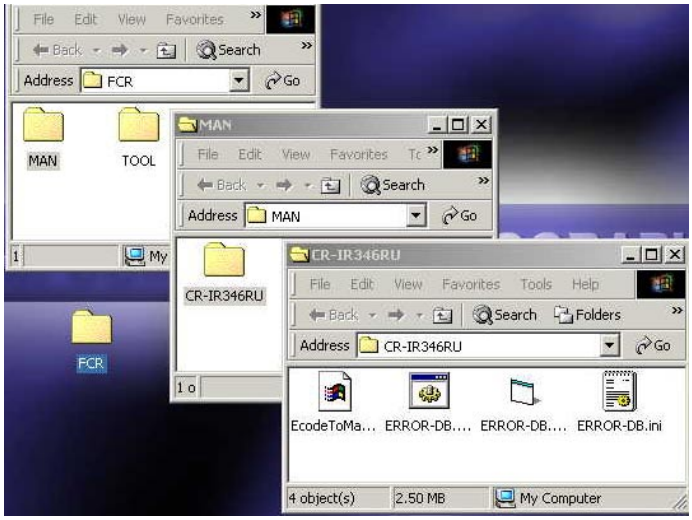
[114Y5436002A05] → [Disk1] → [Program files] → [FujiFilm] → [FCR]



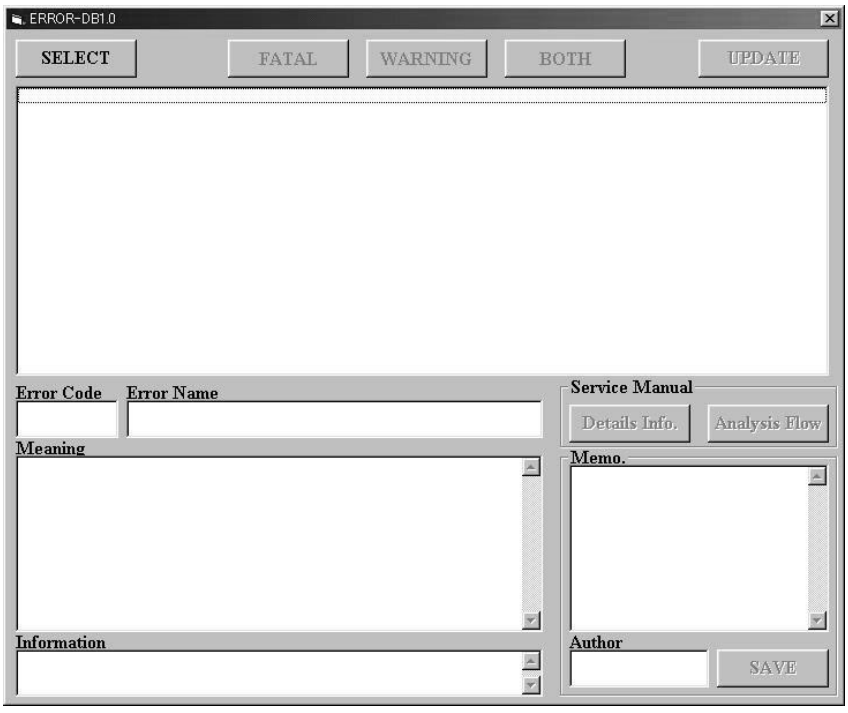
FR6H2554.EPS

(4) Open the folder copied and click “ERROR-DB.exe” to check whether the ERROR-DB windows opens or not.

[FCR] → [ERROR-DB.exe]



FR6H2555.EPS



FR6H2556.EPS

◆ *INSTRUCTION* ◆

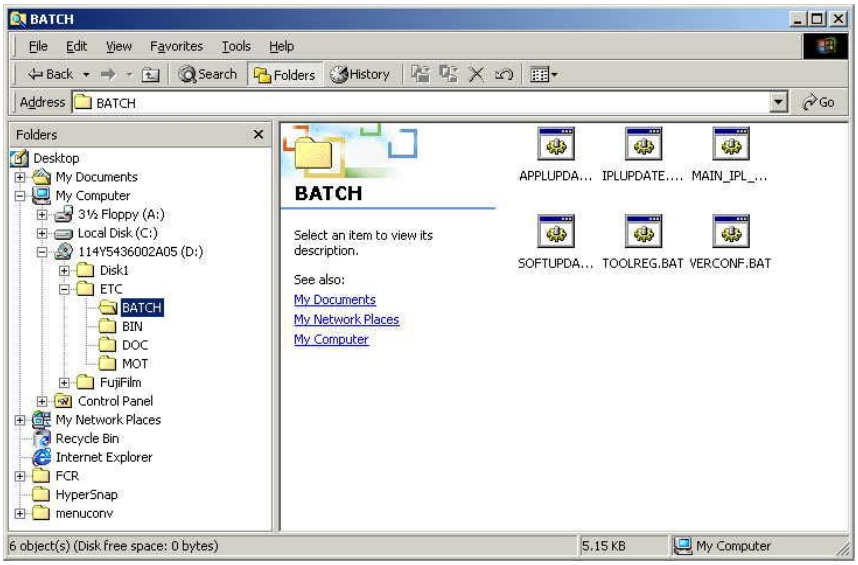
If the ERROR-DB windows does not open but an error is indicated, perform the procedures set forth below.

■ Error Indication

FR6H2557.EPS

Start the Explorer, double-click the batch file (Toolreg.batl), and restart the PC.

(114Y5436002A05) :\ [ETC]\[BATCH]\[TOOLREG.BAT]
[Start] → [Explorer] → [114Y5436002A05] → [ETC] → [BATCH] → [TOOLREG.BAT]



FR6H2558.EPS

3. Details of M-Utility

[1] LOG

Displays the error log or trace log or saves the error log or trace log stored in the RU's CPU memory into the CL's FTP server. Note that the trace log is for design analysis use.

[1-1] ERROR LOG

Displays the contents of the error log or saves the error log stored in the RU's CPU memory into the CL's FTP server.

[1-1-1] DISPLAY

Displays the contents of the error log on screen.

◇ ***REFERENCE*** ◇

When the RU's CPU memory becomes full, the oldest error log information is deleted to store the newest error log information. To back up the contents of the error log, execute "[1-1-2] SAVE TO FTP-SERV" and then copy the FTP server data onto a floppy disk or other media.

■ ALL: Displays all the logged error events in chronological order.

```
LOG>ELG>DSP>ALL> 1

*** ERROR LOG ALL ***
CODE DATE
10921  2000.08.25 14:50:33 00C015 toamerrsnd_
     0 microotfnc.c2138
10921  2000.08.25 14:50:33 00C015 toamerrsnd_
     0 microotfnc.c2138
```

FR6H3052.EPS

[1] FATAL: Displays logged error events at levels 0, 1, and 9 only.

[2] WARNING: Displayed logged error events at levels 2 and 3 only.

[3] BOTH: Displays all error events.

■ SUMMARY: Displays the number of error events of each error code.

```
LOG>ELG>DSP>SML> 3

*** ERROR LOG SUM ***
CODE  DATE                 COUNT
10921 2000.08.25 14:50:33 0512
12992 2000.08.25 13:06:40 0001
```

Number of error events

FR6H3053.EPS

[1] FATAL: Displays the number of logged error events at levels 0 and 9 after grouping them according to error codes.

[2] WARNING: Displays the number of logged error events at levels 1, 2, 3 and 4 after grouping them according to error codes.

[3] BOTH: Displays the total number of logged error events after grouping them according to error codes.

■ Procedure: Example where FATAL error is to be displayed

(1) [1] [ENT] → [1] [ENT] → [1] [ENT] → [1] [ENT] → [1] [ENT]

The error log appears on the display. A prompt appears, asking whether you want to display the next data.

(2) To display the next data, choose “1”.

The next data appears on the display.

(3) Choose “0”.

The error log display process terminates.

■ Display: For Version A02

```
|LOG>ELG>DIS>ALL>1 ..........................................  (1)|
|*** ERROR LOG ALL ***                                           |
|CODE DATE                                                       |
|13603 2000.08.25 14:51:45 00DC05 toammoni_                      |
|      3D0004 commonitar_Op.c 258                                |
|10921 2000.08.25 14:50:33 00C014 toamerrsnd_                    |
|      0 microtfnc,c 2138                                        |
|      •                                                         |
|      •                                                         |
|      •                                                         |
|10921 2000.08.25 14:45:25 00C013 toamerrsnd_                    |
|0.END 1.NEXT(DEFAULT=1) : 1 ..............................  (2)|
|CODE DATE                                                       |
|13603 2000.08.25 14:20:15 00DC05 toammoni_                      |
|      3D0004 commonitar_Op.c 258                                |
|10921 2000.08.25 14:05:01 00C014 toamerrsnd_                    |
|      0 microtfnc,c 2138                                        |
|      •                                                         |
|      •                                                         |
|      •                                                         |
|10921 2000.08.25 13:50:30 00C013 toamerrsnd_                    |
|0.END 1.NEXT(DEFAULT=1) : 0 ..............................  (3)|
```

■ Display: For Versions A03 and A04

```
|LOG>ELG>DIS>ALL>1 ..........................................  (1)|
|*** ERROR LOG ALL ***                                          |
|CODE DATE                                                      |
|[13603] 2000/08/25 14:51:45 00DC05 toammoni_                   |
|         :3D0004 commonitar_Op.c 258                           |
|[10921] 2000/08/25 14:50:33 00C014 toamerrsnd_                 |
|    :0 microtfnc,c 2138                                        |
|    •                                                          |
|    •                                                          |
|    •                                                          |
|[10921] 2000/08/25 14:45:25 00C013 toamerrsnd_                 |
|0.END 1.NEXT(DEFAULT=1) : 1 ..............................  (2)|
|CODE DATE                                                      |
|[13603] 2000/08/25 14:20:15 00DC05 toammoni_                   |
|         :3D0004 commonitar_Op.c 258                           |
|[10921] 2000/08/25 14:05:01 00C014 toamerrsnd_                 |
|    :0 microtfnc,c 2138                                        |
|    •                                                          |
|    •                                                          |
|    •                                                          |
|[10921] 2000/08/25 13:50:30 00C013 toamerrsnd_                 |
|0.END 1.NEXT(DEFAULT=1) : 0 ..............................  (3)|
```

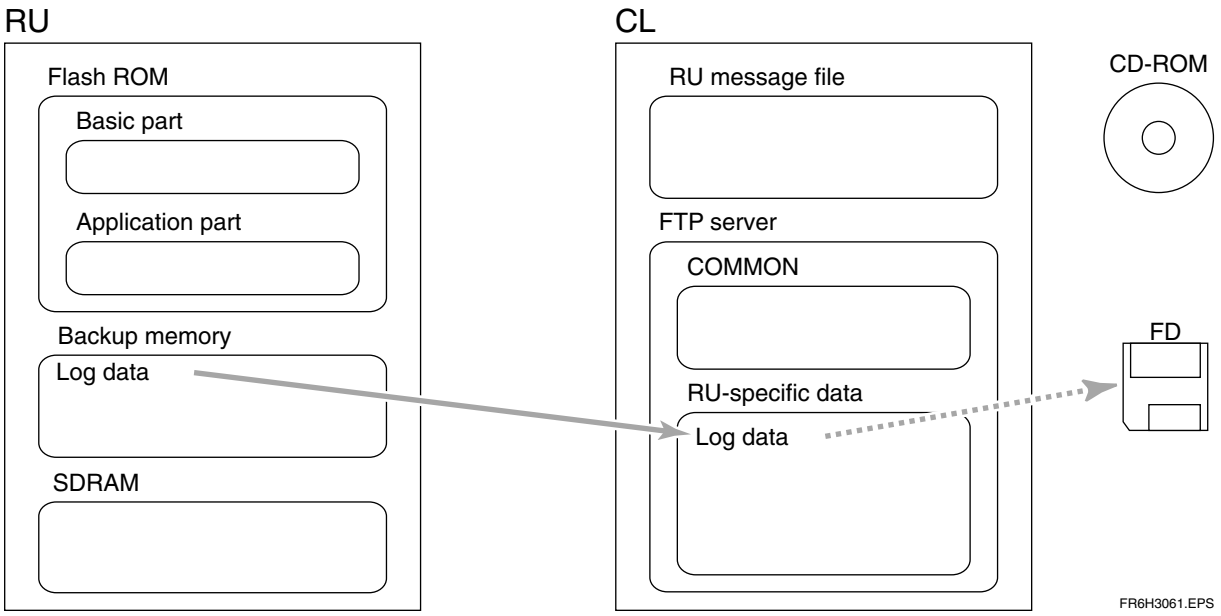
■ Display: For Version A05 or Later

```
|LOG>ELG>DIS>ALL>1 ..........................................  (1)|
|*** ERROR LOG ALL ***                                          |
|CODE DATE                                                      |
|[13603] 2000/08/25 14:51:45 00DC05 <SR> T02                    |
|        :3D0004 commonitar_Op.c 258                            |
|[10921] 2000/08/25 14:50:33 00C014 <BR> T99                    |
|        :0 microtfnc,c 2138                                    |
|   •                                                           |
|   •                                                           |
|   •                                                           |
|[10921] 2000/08/25 14:45:25 00C013 <BR> T99                    |
|0.END 1.NEXT(DEFAULT=1) : 1 ..............................  (2)|
|CODE DATE                                                      |
|[13603] 2000/08/25 14:20:15 00DC05 <SW> T02                    |
|        :3D0004 commonitar_Op.c 258                            |
|[10921] 2000/08/25 14:05:01 00C014 <BR> T99                    |
|        :0 microtfnc,c 2138                                    |
|   •                                                           |
|   •                                                           |
|   •                                                           |
|[10921] 2000/08/25 13:50:30 00C013 <BR> T99                    |
|0.END 1.NEXT(DEFAULT=1) : 0 ..............................  (3)|
```

[1-1-2] SAVE TO FTP-SERV.

Saves the error log stored in the RU's CPU memory into the CL's FTP server.

■ Flow of data



■ Procedure

(1) [1] [ENT] → [1] [ENT] → [2] [ENT]

A message appears, asking whether you really want to start execution.

(2) Choose "1" (YES).

The system then performs the data copy process. When the process ends normally, the display reads "RESULT: OK".

■ Display

```
|LOG>ELG>2 ..................................................  (1)|
|ARE YOU SURE?                                                    |
|1.YES 2.NO(DEFAULT=2) : 1 ..................................  (2)|
|RESULT : OK                                                      |
```

[1-1-3] CLEAR

Deletes the error log from the RU's CPU memory.

■ Procedure

(1) [1] [ENT] → [1] [ENT] → [3] [ENT]

A message appears, asking whether you really want to start execution.

(2) Choose "1" (YES).

The system then deletes the error log. When the deletion process ends normally, the display reads "RESULT: OK".

■ Display

```
|LOG>ELG>3 ..................................................  (1)|
|ARE YOU SURE?                                                    |
|1.YES 2.NO(DEFAULT=2) : 1 ..................................  (2)|
|RESULT : OK                                                      |
```

[1-2] TRACE LOGS

[1-2-1] DISPLAY

Displays the trace logs on screen.

CAUTION

This feature is for design analysis only. Do not use this feature in the market (for regular servicing purposes).

[1-2-2] SAVE ALL TRACE LOGS TO FTP-SERV.

Saves the trace logs stored in the RU's CPU memory into the CL's FTP server.

■ Procedure

(1) [1] [ENT] → [2] [ENT] → [2] [ENT]

A message appears, asking whether you really want to start execution.

(2) Choose "1" (YES).

The system then performs the trace log copy process. When the process ends normally, the display reads "RESULT: OK".

■ Display

```
|LOG>TLG>2 ..................................................... (1) |
|ARE YOU SURE?                                                      |
|1.YES 2.NO(DEFAULT=2) : 1 ..................................... (2) |
|RESULT : OK                                                        |
```

[1-2-3] CLEAR ALL TRACE LOGS

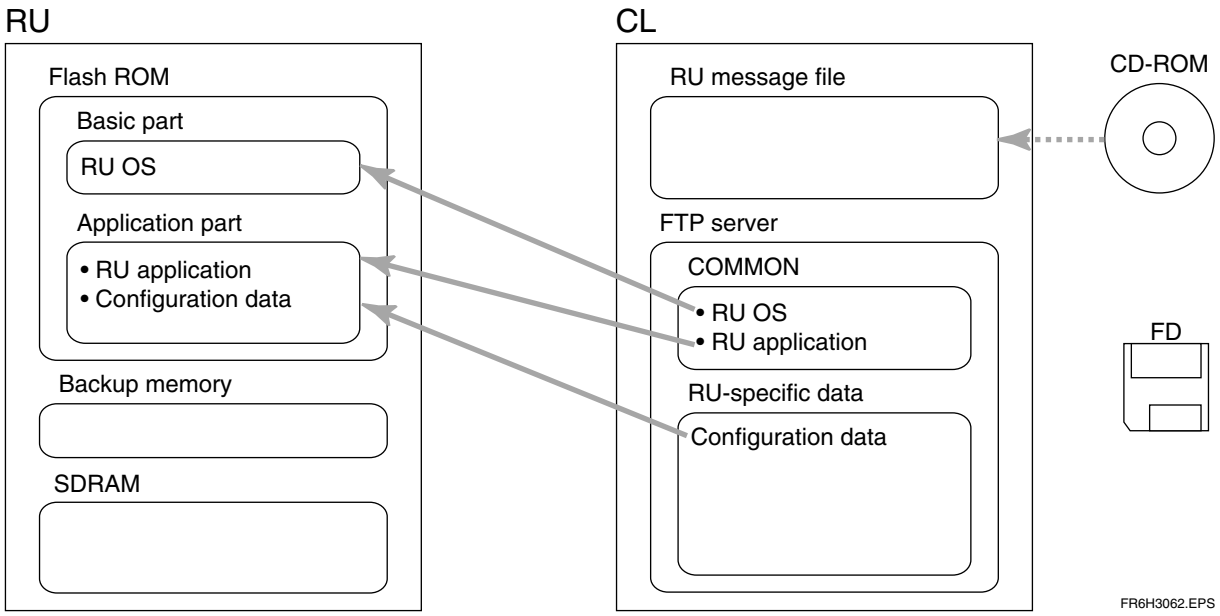
Deletes the trace logs from the RU's CPU memory.

[2] VERSION

Displays the version information about the RU software on screen or loads the RU software or configuration information from the CL's FTP server into the RU.

■ Flow of data

The following data flow diagram shows how data is loaded from the CL's FTP server to the RU.



[2-1] DISPLAY VERSION

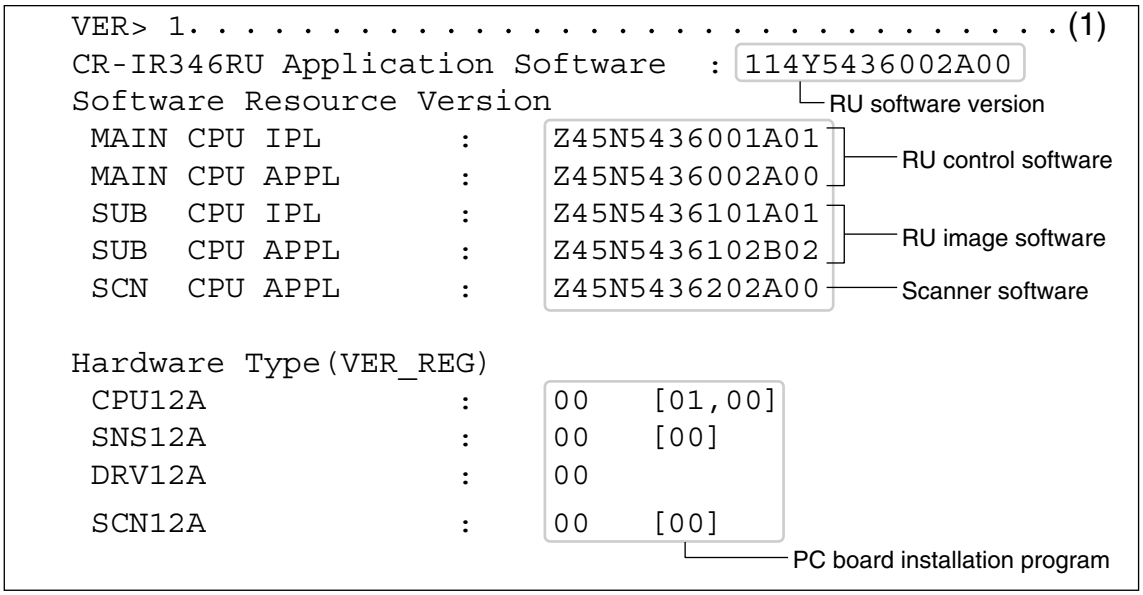
Displays the version information about the RU software.

■ Procedure

(1) [2] [ENT] → [1] [ENT]

The version information then appears on the display.

■ Display


VER> 1. . . . . (1)
CR-IR346RU Application Software : 114Y5436002A00
RU software version
Software Resource Version
MAIN CPU IPL : Z45N5436001A01
MAIN CPU APPL : Z45N5436002A00
RU control software
SUB CPU IPL : Z45N5436101A01
SUB CPU APPL : Z45N5436102B02
RU image software
SCN CPU APPL : Z45N5436202A00
Scanner software
Hardware Type(VER_REG)
CPU12A : 00 [01,00]
SNS12A : 00 [00]
DRV12A : 00
SCN12A : 00 [00]
PC board installation program

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[2-2] DETAIL

Loads the RU software or configuration data from the CL's FTP server into the RU.

CAUTION

This feature is for design analysis only. Do not use this feature in the market (for regular servicing purposes).

[2-2-1] LOAD SOFTWARE FROM FTP-SERV.

Loads the RU software from the CL's FTP server into the flash ROM on the RU's CPU12A board.

CAUTION

While the main CPU or sub-CPU OS is being loaded, do not turn OFF the power or perform a reset because the flash ROM on the CPU12A board becomes damaged, resulting in the RU's inability to start up.

The following software is to be loaded:

Menu item	Software to be loaded
[1] MAIN CPU IPL	Main CPU OS
[2] MAIN CPU APPL	Main CPU application
[3] SUB CPU IPL	Sub-CPU OS
[4] SUB CPU APPL	Sub-CPU application

[2-2-2] LOAD CONFIGURATION FROM FTP-SERV

Loads the RU configuration data (IRSET, IRSTATUS, NETMASK, and ROUTE) from the CL's FTP server into the flash ROM on the RU's CPU12A board.

[2-2-3] COMPARE SOFTWARE WITH FTP-SERV

Compares the version of the software that is loaded in the flash ROM of the RU with the version of the RU software on the FTP server of the CL.

The following software is to be compared:

Menu item	Software to be compared
[1] MAIN CPU IPL	*****
[2] MAIN CPU APPL	Main CPU application
[3] SUB CPU FT	*****

[3] TEST

Conducts an IP conveyance/image reading test in the utility mode, removes dust from the scanner unit, or checks the network connection.

■ Function

● ROUTINE: Image reading and IP conveyance test

Performs a regular IP read/erasure process and outputs an image. Also allows you to perform a read/erasure/image output process while displaying the sensor status (open or closed) and other information on screen.

● AUTO MODE: Conveyance test repetition

Performs a regular IP read/erasure process and outputs an image. When an IP returns to the cassette, it is fed into the machine again and subjected to a read/erasure process. Use this mode to check for improper IP conveyance.

● SCANNER CLEANING: Light-collecting guide cleaning

Rotates the light-collecting mirror to clean the light-collecting surface of the light-collecting guide.

● NETWORK: Checks for access to the FTP server.

Checks the network connection and access to the FTP server.

[3-1] ROUTINE

Performs an IP conveyance/image read operation in the utility mode. Also allows you to perform a read/erasure/image output process while displaying the sensor status (open or closed) and other information on screen.

◇ ***REFERENCE*** ◇

When "READING & ERASURE" and "MONITOR READING & ERASURE" are to be executed, it is necessary to make the RU ready for reading (with the cassette loading lamp illuminated).
Unless the RU is ready for reading, IP conveyance will not start even when a cassette is set in position.

[3-1-1] READING & ERASURE

Performs a regular image read operation, outputs an image, and deletes an image from the IP. Use this menu item when conducting IP conveyance and image read operations simultaneously for testing purposes.

■ Procedure

(1) Have a cassette on hand.

Have an exposed cassette on hand, depending on what to be checked.

(2) Make the RU ready for reading.

Manipulate the CL to make the RU ready for reading (with the cassette loading lamp illuminated).

(3) [3][ENT] → [1][ENT] → [1][ENT]

The machine is made ready for IP conveyance and reading.

(4) Set the cassette in position.

IP conveyance and reading are performed.

When the cassette is set again, IP conveyance and reading are performed successively.

(5) [Ctrl] + [C] → [ENT]

The menu then closes.

■ Display

```
|TST>RTN> 1 ..................................................... (3) |
|                                                                     |
|COMMAND IS IN PROGRESS. ....................................... (4) |
|INTERRUPTION : HIT[^C] + ENT KEY. ............................. (5) |
```

[3-1-2] PRIMARY ERASURE

Performs a regular image read operation to detect the dose received by the IP and effects IP erasure in accordance with the received dose. Since this menu item performs an image read operation to detect the amount of IP consumption, it does not output an image. Use this menu item when you check an image-reading conveyance operation only.

■ Procedure

(1) Have a cassette on hand.

Have on hand a cassette to be erased.

(2) [3][ENT] → [1][ENT] → [2][ENT]

The machine is ready for IP conveyance and erasure.

(3) Set the cassette in position.

IP conveyance and erasure are performed.

When the cassette is set again, IP conveyance and erasure are performed successively.

(4) [Ctrl] + [C] → [ENT]

The menu then closes.

■ Display

```
|TST>RTN> 1 ..................................................... (2) |
|                                                                     |
|COMMAND IS IN PROGRESS. ....................................... (3) |
|INTERRUPTION : HIT[^C] + ENT KEY. ............................. (4) |
```

[3-1-3] SECONDARY ERASURE

Conveys the IP through the image read section without performing an image read operation and merely subjects the IP to secondary erasure. Use this menu item when you check the IP conveyance mechanism only.

[3-1-4] MONITOR READING & ERASURE

Performs the “READING & ERASURE” operation while displaying the sensor status (open or closed) and other information on screen. Use this menu item to locate a fault.

■ Procedure

(1) Have a cassette on hand.

Have on hand a cassette to be erased.

(2) Make the RU ready for reading.

Manipulate the CL to make the RU ready for reading (with the cassette loading lamp illuminated).

(3) [3][ENT] → [1][ENT] → [4][ENT]

The machine is made ready for IP conveyance and erasure.

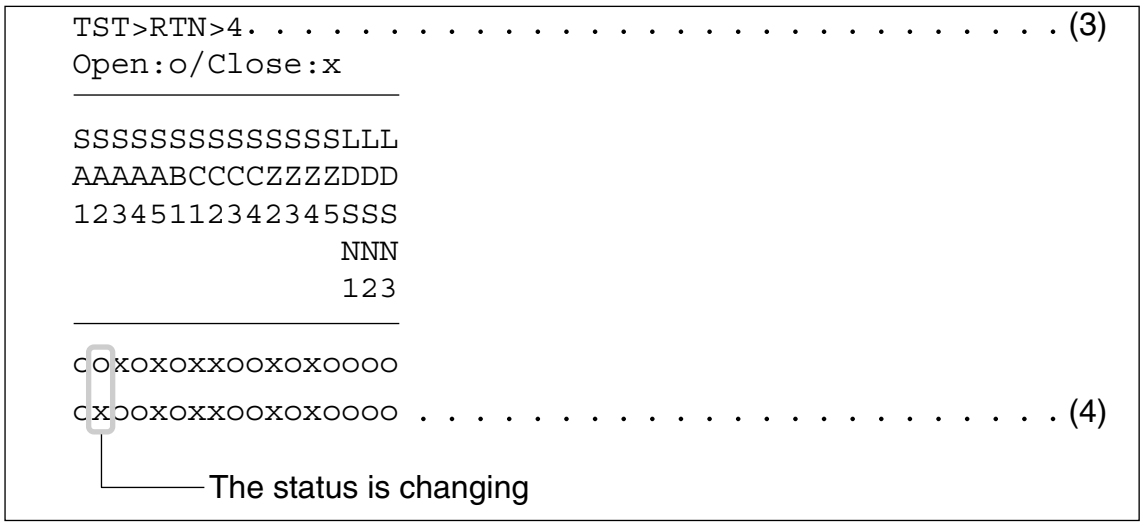
(4) Set the cassette in position.

IP conveyance and erasure are performed, and a new line is displayed whenever the sensor status changes.

(5) [Ctrl] + [C] → [ENT]

The menu then closes.

■ Display



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[3-2] AUTO MODE

Repeatedly performs an IP conveyance/image read operation in the utility mode. When an IP returns, the system concludes that the cassette is newly set in position, and automatically repeats an IP conveyance operation a preselected number of times.

[3-2-1] READING & ERASURE

Performs a regular read operation, outputs an image, and deletes an image from the IP. Since the same IP is repeatedly conveyed, however, the machine reads an erased IP on the second and subsequent cycles.

◇ ***REFERENCE*** ◇

When "READING & ERASURE" is to be executed, it is necessary to make the RU ready for reading (with the cassette loading lamp illuminated).
Unless the RU is ready for reading, IP conveyance will not start even when a cassette is set in position.

■ Procedure

(1) Have a cassette on hand.

(2) Make the RU ready for reading.

Manipulate the CL to make the RU ready for reading (with the cassette loading lamp illuminated).

(3) [3][ENT] → [2][ENT] → [1][ENT]

The display then prompts you to enter the number of times you want to perform IP conveyance and reading.

(4) [5][ENT]

The machine is then ready for performing IP conveyance and reading five times.

(5) Set the cassette in position.

IP conveyance and reading are performed the number of times (five times) that has been set in step (4).

(6) [Ctrl] + [C] → [ENT]

The menu then closes.

■ Display

```
|TST>AUTO>1 ..................................................... (3) |
|                                                                     |
|INPUT THE NUMBER OF CONVEYANCES.                                     |
|INPUT(0 - 99999):5 ............................................. (4) |
|                                                                     |
|COMMAND IS IN PROGRESS. ........................................ (5) |
|INTERRUPTION : HIT[^C] + ENT KEY. .............................. (6) |
```

[3-2-2] PRIMARY ERASURE

Performs an image read operation to detect the dose received by the IP and effects IP erasure in accordance with the received dose. Since this menu item performs an image read operation to detect the amount of IP consumption, it does not output an image.

■ Procedure

(1) Have a cassette on hand.

(2) [3][ENT] → [2][ENT] → [2][ENT]

The display then prompts you to enter the number of times you want to perform IP conveyance and erasure.

(3) [5][ENT]

The machine is then ready for performing IP conveyance and erasure five times.

(4) Set the cassette in position.

IP conveyance and erasure are performed the number of times (five times) that has been set in step (3).

(5) [Ctrl] + [C] → [ENT]

The menu then closes.

■ Display

```
|TST>AUTO>2 ..................................................... (2) |
|                                                                     |
|INPUT THE NUMBER OF CONVEYANCES.                                     |
|INPUT(0 - 99999):5 ............................................. (3) |
|                                                                     |
|COMMAND IS IN PROGRESS. ........................................ (4) |
|INTERRUPTION : HIT[^C] + ENT KEY. .............................. (5) |
```

[3-2-3] SECONDARY ERASURE

Conveys the IP without performing an image read operation and merely subjects the IP to secondary erasure.

[3-3] SCANNER CLEANING

Rotates the light-collecting mirror axis to clean the light-collecting surface of the light-collecting guide.

The function of this menu is the same as the scanner cleaning function in the User Utility.

■ Procedure

(1) [3] [ENT] → [3] [ENT]

The machine then performs a scanner cleaning operation.

■ Display

```
|TST>3 ..................................................... (1) |
|COMMAND IS IN PROGRESS.                                        |
|RESULT : OK                                                    |
```

[3-4] NETWORK

Checks the network connection.

[3-4-1] PING (AUTO)

CAUTION

With software version A02 or earlier, this feature is not implemented, so it should not be used.

Transmits a message to all IP addresses entered in the configuration file to verify the network connection.

[3-4-2] PING (MANUAL)

Transmits a message form the CPU12A board of the RU to a specified address to verify the network connection.

■ Procedure

(1) [3] [ENT] → [4] [ENT]

The display then prompts you to specify the IP address.

(2) Enter an IP address.

The system then checks the connection to the entered IP address.

[3-4-3] DISPLAY FTP-SERV

CAUTIONS

- *With software version A02 or earlier, this feature is not implemented, so it should not be used.*
- *This feature is for design analysis only. Do not use this feature in the market (for regular servicing purposes).*

Accesses the CL's FTP server to verify that files can be accessed.

[4] ELECTRICAL UTILITY

Runs diagnostics to check whether the electrical components are normal.

■ Function

● AUTO MODE/BOARD TEST/SUB CPU TEST:

Conducts memory and interrupt control tests of RU PC boards. You can execute a series of tests automatically or conduct preselected tests.

● POWER SUPPLY MONITOR:

Checks all RU PC boards for blown fuses.

● DISPLAY HARDWARE SWITCH:

Displays the CPU12A board's DIP switch setup.

● BARCODE TEST:

Performs a barcode reader test.

[4-1] AUTO MODE

Runs self-diagnostic checks on the PC boards by conducting a series of PC board tests.

■ Procedure

(1) [4] [ENT] → [1] [ENT] → [2] [ENT]

The display then prompts you to enter the number of times you want to repeat the testing cycle.

(2) Enter “3” (for performing the testing process three times).

The system then repeats the PC board testing cycle the specified number of times (three times). When the testing process ends normally, the display reads “RESULT: OK”.

To abort the testing process during its execution, press the [Ctrl] and [C] keys simultaneously and then press the [ENT] key.

■ Display

```
|EU>AT> 2 ..................................................... (1) |
|                                                                  |
|INPUT REPEAT TIMES.                                               |
|INPUT(0 - 99999):3 ........................................... (2) |
|                                                                  |
|COMMAND IS IN PROGRESS.                                           |
|INTERRUPTION : HIT[^C] + ENT KEY                                  |
|                                                                  |
|COUNT : 00001                                                     |
|COUNT : 00002                                                     |
|COUNT : 00003                                                     |
|                                                                  |
|RESULT : OK                                                       |
```

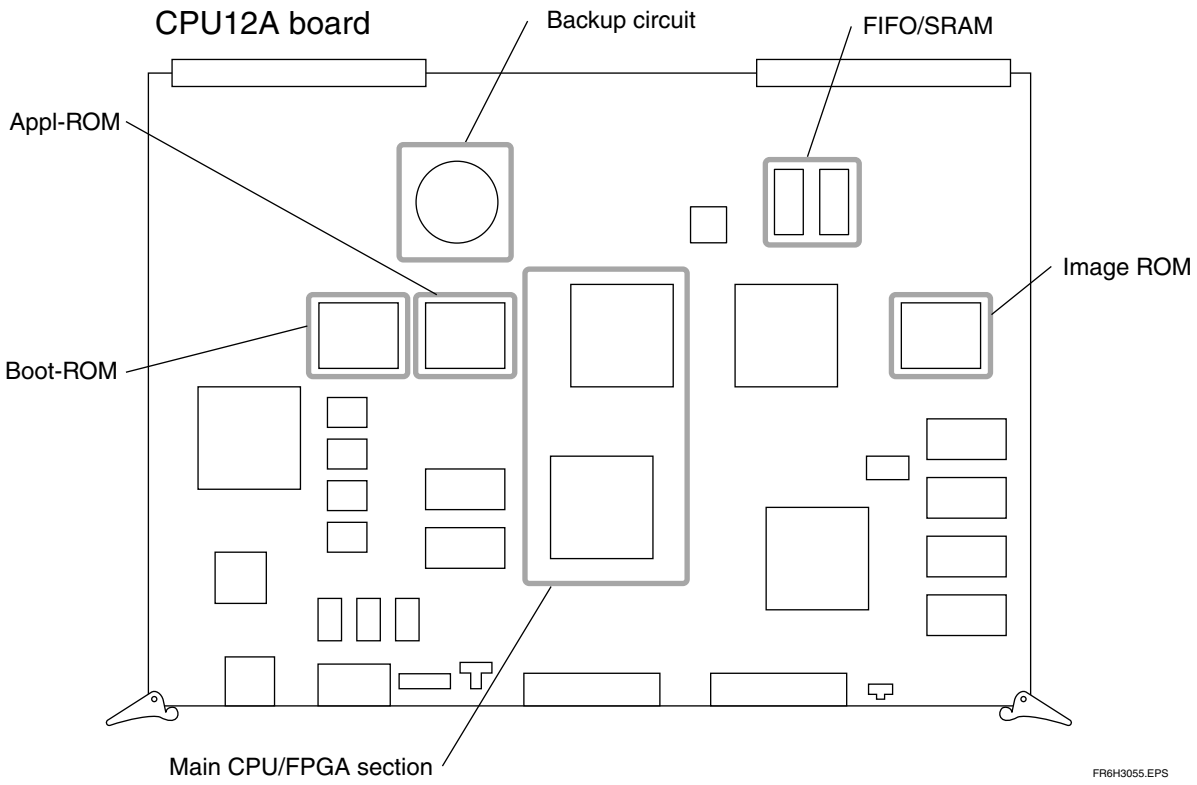
[4-1-1] ALL

Runs all the self-diagnostic checks between [4-1-2] and [4-1-6] (CPU12A, SCN12A, INV12A, SNS12A, DRV12A, and SUBCPU).

You can repeat execution within a range of 1 to 99999.

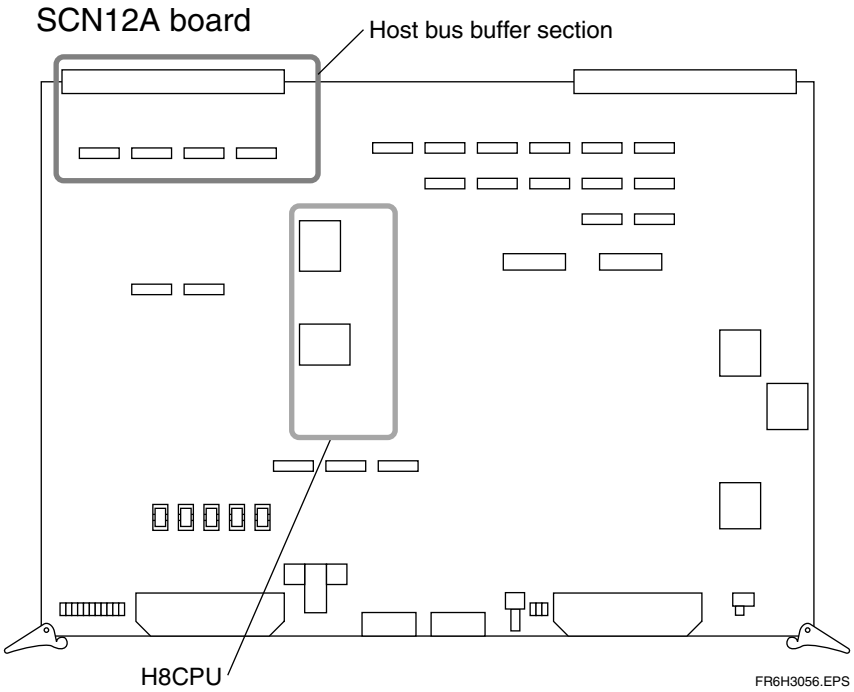
[4-1-2] CPU12A

Runs diagnostic checks on the following parts of the CPU12A board. You can repeat execution within a range of 1 to 99999.



[4-1-3] SCN12A

Runs diagnostic checks on the following parts of the SCN12A board. You can repeat execution within a range of 1 to 99999.

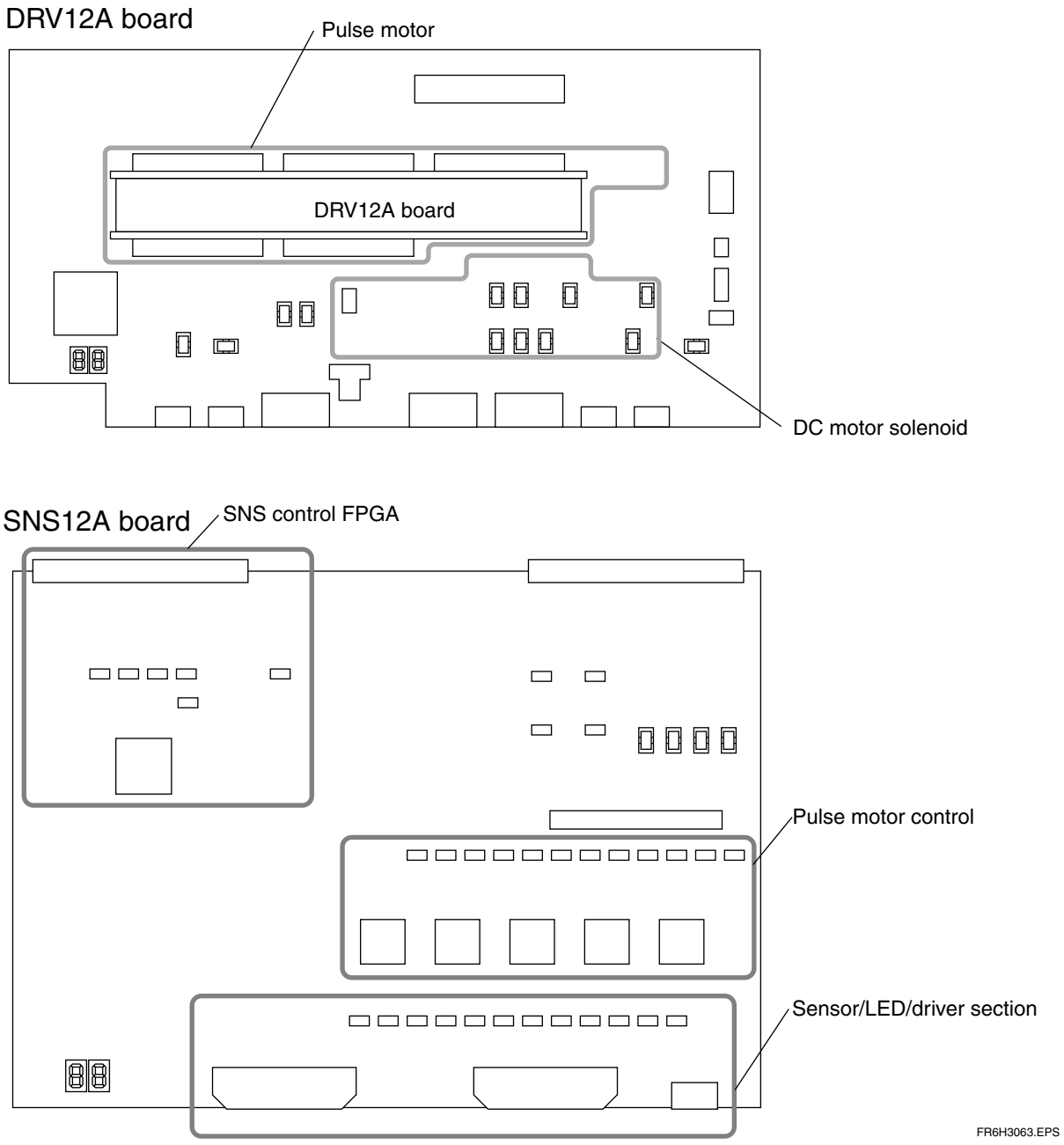


[4-1-4] INV12A

Runs diagnostic checks on the following parts of the INV12A board. You can repeat execution within a range of 1 to 99999.

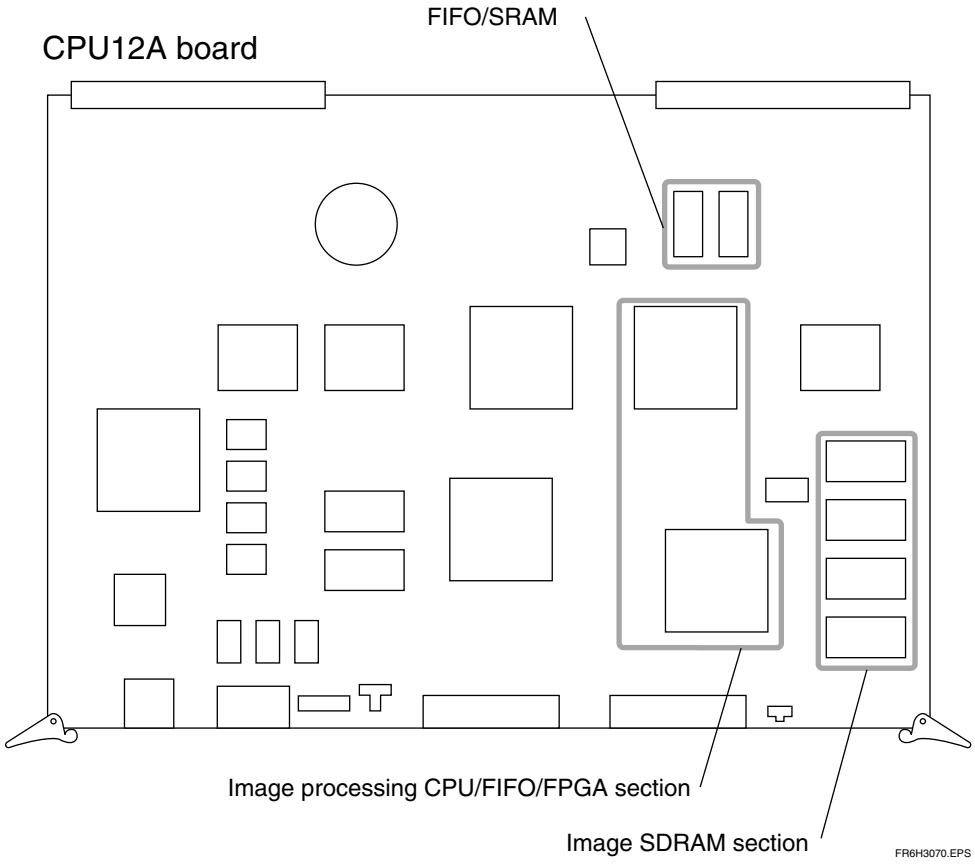
[4-1-5] SND12A

Runs diagnostic checks on the following parts of the SND12A board. You can repeat execution within a range of 1 to 99999.



[4-1-6] SUB CPU

Runs self-diagnostic checks on the following parts of the sub-CPU. You can repeat execution within a range of 1 to 99999.



[4-2] BOARD TEST

Conducts various PC board tests on an individual basis for self-diagnostic checkout of each functional block.

[4-2-1] CPU12A

Runs a self-diagnostic check on each functional block of the CPU12A board.

[1] BACKUP MEMORY TEST:

Tests the backup memory.

[2] SDRAM TEST:

Tests the main memory.

[3] MAIN IPL CHECK SUM TEST:

Compares the IPL program on the board with the program of the FTP server (CL) for checkout purposes.

[4] MAIN APPL CHECK SUM TEST:

Compares the application program on the board with the program of the FTP server (CL) for checkout purposes.

[5] MAIN APPL ROM R/W TEST:

Tests the main application ROM.

[6] INTERRUPT TEST:

Tests the interrupt control.

[7] REGISTER (ETH) TEST:

Conducts a register test.

[4-2-2] SCN12A

Runs a self-diagnostic check on each functional block of the SCN12A board.

[1] REGISTER (ETH) TEST:

Conducts a register test.

[2] INTERRUPT TEST:

Tests the interrupt control.

[3] H8 COMMUNICATION TEST:

Communicates with the CPU (H8) on the SCN12A board to verify the normal return.

[4-2-3] SND12A

Runs a self-diagnostic check on each functional block of the SND boards (SNS12A and DRV12A boards).

[1] REGISTER (ETH) TEST:

Conducts a register test.

[2] SENSOR TEST:

Tests the control signal output to a sensor.

[3] LED TEST:

Tests the control signal output to an LED.

[4] SOLENOID TEST:

Tests the control signal output to a solenoid.

[5] PULSEMOTOR TEST:

Tests the control signal output to a motor.

[6] INTERRUPT TEST:

Tests the interrupt control.

[4-2-4] INV12A

Runs a self-diagnostic check on each functional block of the INV12A board.

[1] REGISTER TEST:

Conducts a register test.

[2] LAMP TEST:

Checks for erasure lamp illumination.

[4-3] SUB CPU TEST

Tests the SDRAM and FIFO memory of the sub-CPU (digital data processing CPU) on the CPU12A board. Also allows you to output a pattern image or generate an image re-output.

[1] SDRAM TEST:

Tests the SDRAM.

[2] FIFO TEST:

Tests the FIFO memory.

[4-3-1] SDRAM TEST

Tests the SDRAM of the sub-CPU.

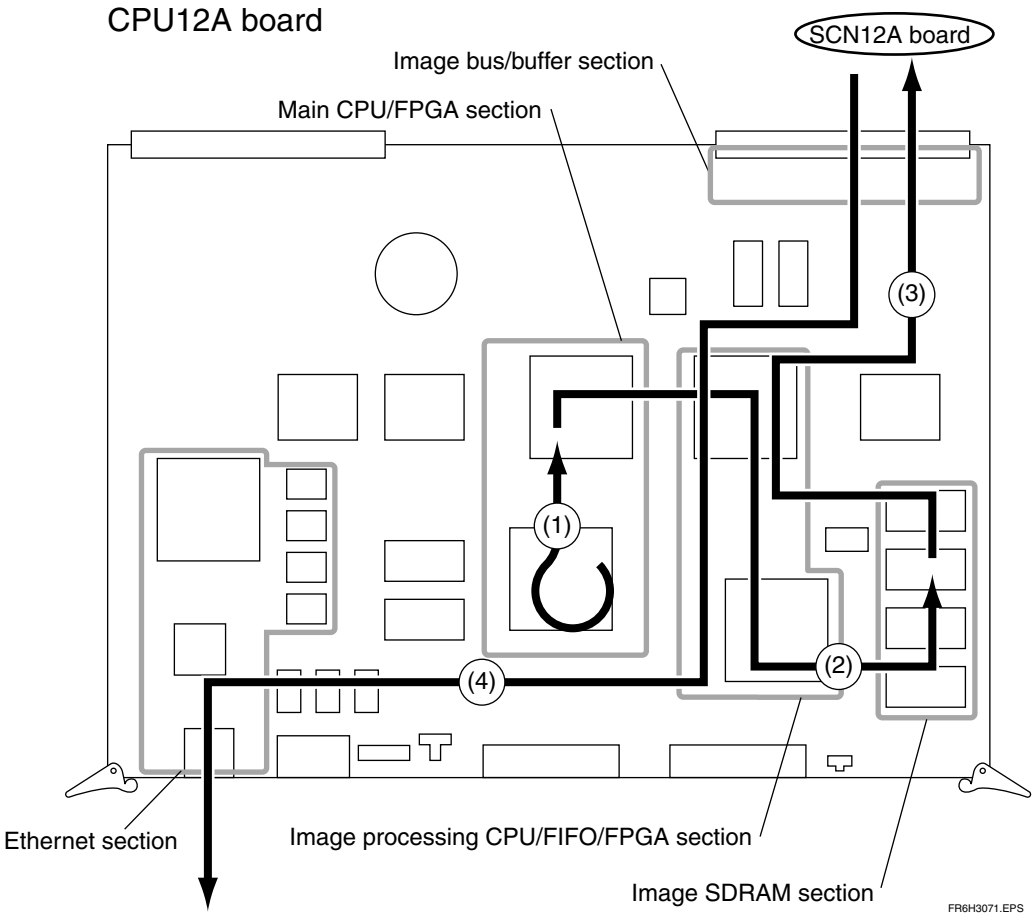
[4-3-2] FIFO TEST

Tests the FIFO memory.

[4-3-3] OUTPUT PATTERN IMAGE

Outputs pattern images of various IP sizes.

The flow of pattern image generation is shown below:



(1) The main CPU generates image data.

(2) The main CPU sends the image data to the SDRAM of the sub-CPU.
The image data is sent to the sub-CPU SDRAM via the system bus.

(3) The sub-CPU sends the image data to the SCN board.
The image data is sent to the SCN board via the image bus.

(4) The system generates an image output.
The image data fed from the SCN12A board is transferred out via the network.

◆ ***NOTE*** ◆

When "Output PATTERN IMAGE" is to be executed, it is necessary to make the RU ready for reading (with the cassette loading lamp illuminated).
Unless the RU is made ready for reading, an error (13011) will occur, and the processing is aborted.

■ Procedure: Example where a pattern image of 14"x14" size is to be outputted.

(1) Cancel the ready-for-reading state of the RU.

Manipulate the CL to cancel the ready-for-reading state of the RU (with the cassette loading lamp not illuminated).

(2) [4][ENT] → [3][ENT] → [3][ENT]

A menu then opens, prompting you to select an output image size.

(3) Enter “2” (14"x14").

The system then outputs an image presented below. When the image output process ends normally, the display reads “RESULT: OK”.

■Display

```
|EU>SBCPU>3 ..................................................... (2) |
|                                                                    |
|0.QUIT                                                              |
|1.14"x17"                                                           |
|2.14"x14"                                                           |
|3.10"x12"                                                           |
|4.8"x10"                                                            |
|5.24x30                                                             |
|6.18x24                                                             |
|EU>SBCPU>IMGOUT>2 ............................................ (3) |
|                                                                    |
|COMMAND IS IN PROGRESS.                                             |
|RESULT : OK                                                         |
```

[4-3-4] RE-OUTPUT IMAGE

Re-outputs an image.

◆ *NOTE* ◆

When "Re-output IMAGE" is to be executed, it is necessary to make the RU ready for reading (with the cassette loading lamp illuminated).
Unless the RU is made ready for reading, an error (13011) will occur, and the processing is aborted.

■ Procedure

(1) [4] [ENT] → [3] [ENT] → [4][ENT]
The system then outputs an image.

■ Display

```
|EU>SBCPU>4 ..................................................... (1) |
|                                                                     |
|COMMAND IS IN PROGRESS.                                              |
|RESULT : OK                                                          |
```

[4-4] POWER SUPPLY MONITOR

Automatically checks all PC boards for blown fuses. Note, however, that this menu item may not work if the CPU12A board is faulty.

■ Procedure

(1) [4] [ENT] → [4] [ENT]
The system then checks for blown fuses. When the fuse checkout process ends normally, the display reads "RESULT: OK".

■ Display

```
|EU>4 ..........................................................  (1)|
|RESULT : OK                                                          |
```

[4-5] DISPLAY HARDWARE SWITCH

Displays the settings of the DIP and slide switches on the CPU12A board.

■ Procedure

(1) [4] [ENT] → [5] [ENT]

The system then checks and displays the switch settings.

■ Display

```
|EU>5 ..................................................... (1) |
|                                                               |
|Slide-Sw on CPU12A                                             |
|(Left:REMOTE/Right:LOCAL)            :     Right               |
|                                                               |
|DIP-SW on CPU12A                                               |
| No.1— IMPOSSIBLE TO READ  (FOR ONLY HARD SETTING) —           |
| No.2(0:NORMAL/1:DEBUG)              :                    0    |
| No.3(0:INCH/1:METRIC)               :                    1    |
| No.4(0:NONE/1:BCR SETTING)          :                    1    |
| No.5(0:NORMAL/1:DRAM TEST)          :                    0    |
| No.6(RESERVE)                       :                    0    |
| No.7(RESERVE)                       :                    0    |
| No.8(0:NORMAL/1:FT BOOT)            :                    0    |
```

[4-6] BARCODE TEST

◆ ***NOTES*** ◆

- *If you conduct the "[4-6] BARCODE TEST" when the CPU12A board DIP switch is set so as not to use the optional barcode reader, the display always reads "RESULT: OK".*
- *Since the function of "[4-6-2] READ TEST" has been changed between version A02 or earlier and version A03 or later, their respective procedures should be performed as appropriate.*

[4-6-1] COMMUNICATION

Sends a control command to the barcode reader to check for a response.

■ Procedure

(1) [4] ENT] → [6] [ENT]

(2) Choose "1" (COMMUNICATION).

The system then checks for a response from the barcode reader. When the checkout process ends normally, the display reads "RESULT: OK".

■ Display

```
|EU>6 ..................................................... (1) |
|                                                               |
|0.QUIT                                                         |
|1.COMMUNICATION                                                |
|2.READ TEST                                                    |
|EU>BCR>1 ................................................. (2) |
|RESULT : OK                                                    |
```

[4-6-2] READ TEST

Checks whether the barcode can be read normally.

◇ ***REFERENCE*** ◇

When "READ TEST" is to be executed, it is necessary to make the RU ready for reading (with the cassette loading lamp illuminated).
Unless the RU is ready for reading, barcode reading will not be performed.

■ Procedure: For software version A02

(1) Make the RU ready for reading.

Manipulate the CL to make the RU ready for reading (with the cassette loading lamp illuminated).

(2) [6][ENT] → [4][ENT] → [1][ENT] → [2][ENT]

The system then executes IP feed of the MECHANICAL UTILITY.

(3) Set a barcode-ready IP cassette into the IP set unit.

The IP is fed.

(4) [0][ENT] → [0][ENT] → [0][ENT]

The MECHANICAL UTILITY then closes with the IP feed in progress.

(5) [4][ENT] → [6][ENT]

(6) Select "2" (READ TEST).

(7) Remove the IP set unit cover and manually rotate the conveyance roller and so forth to convey the IP that has been fed, to a position where the barcode reader is located.

When the barcode is read normally, the display reads "RESULT: OK".

If the barcode cannot be read even under condition where the barcode is located at the barcode reading position, the barcode reader is faulty.

■ Display: For Software Version A02

```
|EU>6 ..................................................... (5) |
|                                                               |
|0.QUIT                                                         |
|1.COMMUNICATION                                                |
|2.READ TEST                                                    |
|EU>BCR>2 ................................................. (6) |
|COMMAND IS IN PROGRESS                                         |
|INTERRUPTION : HIT[^C] + ENT KEY.                              |
|RESULT : OK                                                    |
```

■ Procedure: For software version A03 or later

(1) Make the RU ready for reading.

Manipulate the CL to make the RU ready for reading (with the cassette loading lamp illuminated).

(2) [4][ENT] → [6][ENT]

(3) Select “2” (READ TEST).

(4) Set a barcode-ready IP cassette into the IP set unit.

The IP is fed, and when the barcode is read normally, the display reads “RESULT: OK”.

◇ *REFERENCES* ◇

- *If the barcode cannot be read through a single conveyance, the IP is conveyed again by setting the IP cassette into the IP set unit once again. If the barcode cannot still be read, an error results.*
- *If “READ TEST” is executed with such DIP switch setting on the CPU12A board as not to use the barcode, the display always reads “RESULT: OK”, no matter whether the barcode is available or not.*

■ Display: For software version A03 or later

```
|EU>6 ..................................................... (2) |
|                                                               |
|0.QUIT                                                         |
|1.COMMUNICATION                                                |
|2.READ TEST                                                    |
|EU>BCR>2 ................................................. (3) |
|COMMAND IS IN PROGRESS : OK                                    |
|INTERRUPTION : HIT[^C] + ENT KEY.                              |
|RESULT : OK                                                    |
```

[5] SCANNER UTILITY

Sets the scanner unit and checks its operation.

■ Function

- INITIALIZE: Initializes the scanner.
- POLYGON: Checks the operation of the polygon.
- LASER: Checks the operation of the laser.
- SAVE INITIAL LDIF: Shall not be used because it is intended for design analysis purposes.
- HV STATUS: Displays the status of the HV switch.
- HV ON/OFF: Turns ON and OFF the HV switch (software switch).
- HV DATA: Checks the HV voltage command value that is outputted from the SCN12A board.
- FORMAT: Fine-tunes the read start position (PIXEL) and read width (FREQ).
- SHADING/SENSITIVITY: Makes shading and sensitivity corrections.
- DATA MANAGEMENT: Saves the scanner data into the FTP server (CL) and loads the saved scanner data.
- DIAGNOSTIC: Starts the polygon and runs a self-diagnostic check on the scanner.
- VIRTUAL IMAGE: Causes the light-collecting section to generate image data.

[5-1] INITIALIZE

Initializes the scanner.

In the initialization process, the main-scanning parameters for the scanner are downloaded from the CPU12A board flash memory into the SDRAM and then downloaded from the CPU12A board into the SCN12A board. Further, the laser and polygon are turned OFF in this initialization process.

■ Procedure

(1) [5] [ENT] → [1] [ENT]

The system then performs the scanner initialization process. When the process ends normally, the display reads “RESULT: OK”.

■ Display

```
|SCN>1 ..................................................... (1) |
|                                                                |
|COMMAND IS IN PROGRESS                                          |
|RESULT : OK                                                     |
```

[5-2] POLYGON

Turns ON and OFF the polygon.

When the polygon ON signal is generated, the polygon ON signal LED on the SCN12A board comes on.

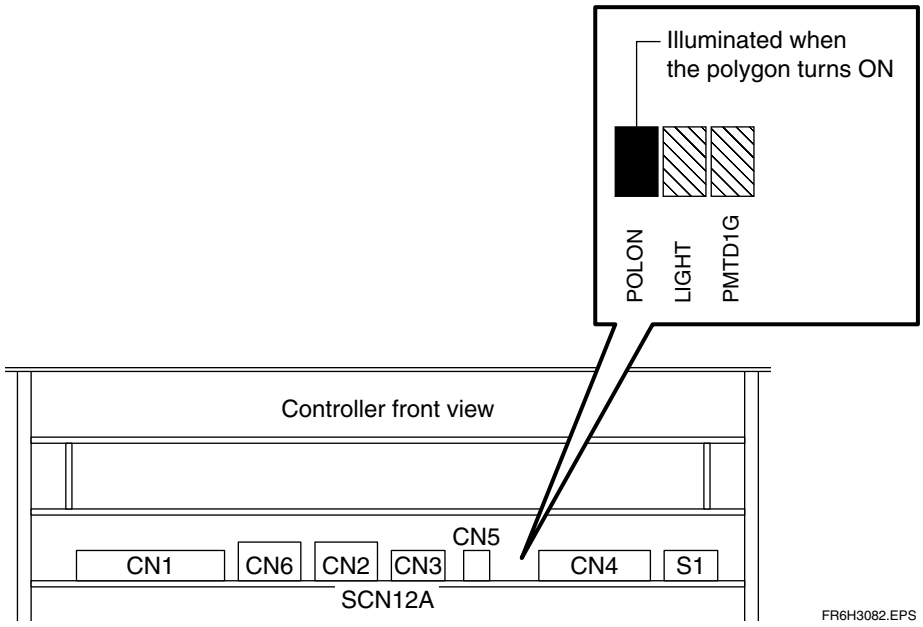
CAUTION

If the cover must be removed to gain access to the LED on the SCN12A board, turn OFF the HV switch before removing the cover.
If the cover is removed with the HV switch in the ON position, the photomultiplier will be damaged.

■ Procedure

(1) [5] [ENT] → [2] [ENT] → [2] [ENT]

The polygon then turns ON and then the display reads “RESULT: OK”. If the polygon ON signal LED on the SCN12A board does not come on in this instance, the SCN12A board is faulty.



(2) [1] [ENT]

The polygon then turns OFF.

■ Display

```
|SCN>POLY>2 ..................................................... (1)  |
|RESULT : OK                                                          |
|                                                                     |
|0.QUIT                                                               |
|1.OFF                                                                |
|2.ON                                                                 |
|SCN>POLY>1 ..................................................... (2)  |
|RESULT : OK                                                          |
```

[5-3] LASER

Turns ON and OFF the laser.

When the laser turns ON, the system turns ON the polygon and runs a diagnostic check on the polygon and laser.

CAUTION

While the laser is ON, do not turn OFF the polygon. If you turn OFF the polygon with the laser turned ON, the laser light may fall upon a single spot, causing a risk of machine failure or fire.

■ Procedure

(1) [5] [ENT] → [3] [ENT] → [2] [ENT]

This causes the laser and polygon to turn ON, and the display reads one of the following values and "RESULT: OK".

- LDIFINT: LD amperage value at the time of shipping from factory
- LDIFNOW: Current LD amperage value
- LDIFNOW/LDIFINT: Value indicative of how much the amperage value has dropped, since shipping from factory until now.

◇ ***REFERENCE*** ◇

When the value of LDIFNOW/LDIFINT drops below 0.6, an error code is displayed.

(2) [1] [ENT]

The laser and polygon then turn OFF.

■ Display

```
|SCN>LZR>2 ..................................................... (1)  |
|                                                                    |
|Laser ON                                                            |
|LDIFINT : 127.66                                                    |
|LDIFNOW : 127.33                                                    |
|LDIFNOW/LDIFINT : 0.99                                              |
|RESULT : OK                                                         |
|                                                                    |
|0.QUIT                                                              |
|1.OFF                                                               |
|2.ON                                                                |
|SCN>LZR>1 ..................................................... (2)  |
|RESULT : OK                                                         |
```

[5-4] SAVE INITIAL LDIF

CAUTION

This feature is for design analysis only. Do not use this feature in the market (for regular servicing purposes). If it is used inadvertently, install the machine shipment control data for the optical system.

[5-4-1] GET DATA FROM SCN, SAVE TO RAM & FLASH & FTP-SERV

Acquires machine shipment control data from the scanner and sets the acquired values in the SDRAM, flash memory, and FTP server.

[5-4-2] SAVE DEFAULT DATA TO RAM & FLASH & FTP-SERV

Restores the machine shipment control data in the SDRAM, flash memory, and FTP server to the default values.

[5-5] HV STATUS

Displays the HV switch setting.

◇ ***REFERENCE*** ◇

The display reads "OFF" when either the software switch or the hardware switch is OFF.

■ Procedure

(1) [5] [ENT] → [5] [ENT]

This causes the display to show the HV switch setting and then the message "RESULT: OK".

■ Display

```
|SCN>5 ..................................................... (1) |
|HV ON                                                          |
|RESULT : OK                                                    |
```

[5-6] HV ON/OFF

Turns ON or OFF the HV switch (software switch).

When you execute “[5-6] HV ON/OFF”, the system checks the HV switch setting and then turns ON or OFF the HV switch.

When the system turns ON the HV switch, it checks the response from the photomultiplier board and then displays the result.

CAUTION

Before turning ON the HV switch (software switch), check to see whether the cover is installed. If the HV switch is turned ON with the cover removed, the photomultiplier will be damaged.

■ Procedure

(1) [5] [ENT] → [6] [ENT] → [2] [ENT]

This causes the display to show the HV switch setting and then the message “RESULT: OK”.

■ Display

```
|SCN>HV>2 ..................................................... (1) |
|HV ON                                                             |
|RESULT : OK                                                       |
```

◇ ***REFERENCE*** ◇

If the HV switch (hardware switch) on the SCN12A board is OFF, the displays reads “HV OFF and “RESULT: OK” even when the HV software switch turns ON.

```
|SCN>HV>2                                                          |
|HV OFF                                                            |
|RESULT : OK                                                       |
```

[5-7] HV DATA

When you enter an HV voltage value between 255 and 667 V, the system checks whether the command value output from the SCN12A board is equal to the entered value.

◇ ***REFERENCE*** ◇

If the HV switch (software or hardware switch) is OFF, the displays reads "HV OFF" and "RESULT: OK" even when you enter an HV voltage value.

■ Procedure

(1) [5] [ENT] → [7] [ENT]

A message then appears to prompt for the input of an HV voltage value. If the HV switch is OFF in this instance, the display reads "HV OFF" and then "RESULT: OK".

(2) Enter the value "300" (HV voltage).

■ Display

```
|SCN>7 ..................................................... (1) |
|                                                                |
|INPUT HIGH-VOLTAGE'S DA DATA                                    |
|INPUT(250 - 667[V]):300 ................................... (2) |
|RESULT : OK                                                     |
```

[5-8] FORMAT

Fine-tunes the read start width (FREQ) and read start position (PIXEL).

◇ ***REFERENCE*** ◇

Use the "FORMAT" menu when the format needs to be fine-tuned in situations where the machine shipment control data is installed. You should also use this menu when inter-unit adjustments are needed due, for instance, to simultaneous replacement of the subscanning unit and side-positioning conveyor.

◆ ***NOTES*** ◆

- *Once the setting is changed, the result of that change becomes effective immediately.*
- *Because the value that has been changed becomes ineffective when the machine is rebooted, you must perform "BACKUP" of the configuration if you want to keep the setup value effective after reboot or to save the setup value.*

■ Function

- DEFAULT: Restores the settings of the read width (FREQ) and read start position (PIXEL) to their default values.
- FREQ ADJUST: Fine-tunes the read width (FREQ).

  It makes fine adjustments when the size of the output image is enlarged or reduced in the horizontal (main scan) direction.
- PIXEL ADJUST: Fine-tunes the read start position (PIXEL).

  It fine-tunes the image output position to the right or left when any horizontal white blank appears on the output image or when the image is cut off (when there is some non-outputted portion).

  ◇ ***REFERENCES*** ◇

  - *When both the read width (FREQ) and read start position (PIXEL) are to be adjusted, the read width should be first adjusted. If the read start position is first adjusted, it may be necessary to adjust the read start position again as a result of the read width adjustment.*
  - *The value that has been set in the "FORMAT" menu becomes ineffective when the machine is rebooted. You must perform "BACKUP" of the configuration if you want to keep the setup value effective after reboot.*

[5-8-1] DEFAULT

Restores the current settings for the read start position (PIXEL) and read width (FREQ) to the default values.

◇ ***REFFERENCE*** ◇

When you select the default settings, the system adjusts the output image position to make IP edges visible, indicating that the default settings are used.

[1] PIXEL AND FREQ:

Restores both the read start position and read width to the default values.

[2] PIXEL ONLY:

Restores only the read start position to the default value.

[3] FREQ ONLY:

Restores only the read width to the default value.

■ Procedure: Example where both the read start position and read width are restored to the default values

(1) [5] [ENT] → [8] [ENT] → [1] [ENT] → [1] [ENT]

The system restores the read start position and read width to their default values and the display reads “RESULT: OK”.

■ Display

```
|SCN>FMT>DEF>1 ..................................................... (1) |
|RESULT : OK                                                             |
```

[5-8-2] FREQ ADJUST

Adjusts the read width (FREQ) over a range from -5.00 to +5.00%. Any entry outside the acceptable range will be invalidated.

■ Procedure: Example of 3% enlargement

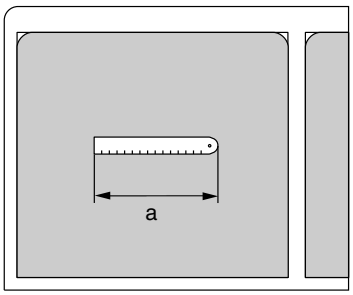
(1) Place a 150-mm steel rule on an IP of 14"x14" (35cm x 35cm) or 14"x17" (35cm x 43cm) size (in such an orientation that it becomes longer in the main scan direction), and expose it at about 1 mR.

At least two IPs should be exposed for checks before and after adjustment.

(2) Read one of the IPs provided in step (1), and outputs its image.

(3) Measure any drift in the read width.

Measure the actual size of the 150-mm steel rule and the size of the white blank portion, and calculate the adjustment value according to the formula shown below.



Measure “a” on the output film.

$$\frac{\left(\text{Actual size of steel rule}\left(\frac{a}{\text{Reduction factor}}\right)\right)}{\text{Actual size of steel rule}} \times 100 = \text{Adjustment value (\%)}$$

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(4) [5][ENT] → [8][ENT] → [2][ENT]

The display prompts for the input of the read width adjustment value.

(5) Enter the read width adjustment value (for example, “3”) calculated in step (3).

The read width is then adjusted accordingly.

◇ ***REFERENCE*** ◇

The output image is reduced when a negative-quantity (“-” signed) read width is entered, and enlarged when a positive-quantity (“+” signed) read width is entered.

(6) Read one of the IPs provided in step (1), and output its image.

(7) Measure the actual size of the 150-mm steel rule and the size of the white blank portion, and make sure that there is no drift between them.

If there is any drift, reset the RU and then make adjustments again.

■ Display

```
|SCN>FMT>3 ..................................................... (4) |
|                                                                    |
|INPUT : INVALID PIXELS.                                             |
|INPUT(-70 - +70):40 ........................................... (5) |
|RESULT : OK                                                         |
```

[5-8-3] PIXEL ADJUST

Fine-tunes the read start position (PIXEL).

Any entry outside the adjustable range will be invalidated.

■ Procedure: To eliminate the 1.5-mm white blank

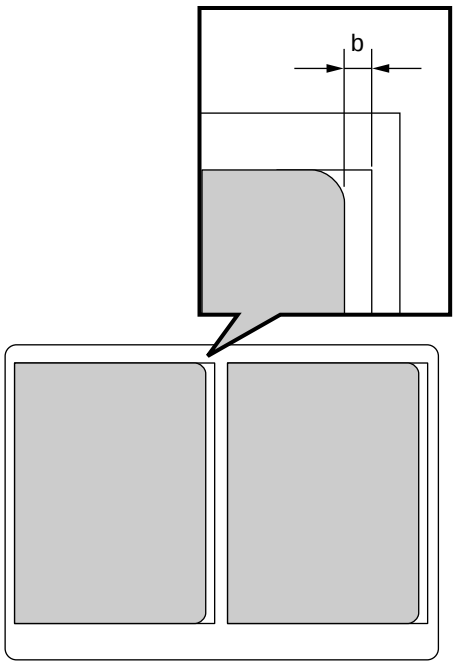
(1) Expose an IP of 14"x14" (35cm x 35cm) or 14"x17" (35cm x 43cm) size at about 1 mR.

At least two IPs should be exposed for checks before and after adjustment.

(2) Read one of the IPs provided in step (1), and output its image.

(3) Measure any drift in the read start position.

Measure the size of the white blank portion, and calculate the adjustment value according to the formula shown below.



$$\left(\frac{b}{\text{Reduction factor}} \times 10 \right) = \text{Adjustment value (PIXEL)}$$

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(4) [5][ENT] → [8][ENT] → [3][ENT]

The display prompts for the input of the read start position adjustment value.

(5) Enter the read start position adjustment value (for example, “40”) calculated in step (3).

The read start position is then adjusted accordingly.

◇ ***REFERENCE*** ◇

The white blank portion of the output image is expanded when a negative-quantity (“-” signed) value is entered, and narrowed when a positive-quantity (“+” signed) value is entered.

(6) Read one of the IPs provided in step (1), and output its image.

(7) Make sure that there is no white blank portion and the image is not cut off.

■ Display

```
|SCN>FMT>3 ..................................................... (4) |
|                                                                    |
|INPUT : INVALID PIXELS.                                             |
|INPUT(-999 - +999):40 ......................................... (5) |
|RESULT : OK                                                         |
```

[5-8-4] OPTIC FORMAT

Use this menu when you manually enter the machine shipment control data indicated on the scanning optics unit.

CAUTION

Use "OPTIC FORMAT" only when you manually enter the machine shipment control data indicated on the scanning optics unit.

■ Procedure

(1) Take note of the following values indicated on the label attached on the scanning optics unit top surface.
- "FREQ": Read width
- "PIXO": Read start position

(2) Install the cover.

(3) Start the M-Utility of the RU.

(4) [5][ENT] → [8][ENT] → [4][ENT] → [1][ENT]

A message then appears to prompt for the input of the read width.

(5) Enter the read width (for example, "3").

(6) [2][ENT]

A message then appears to prompt for the input of the read start position.

(7) Enter the read start position (for example, "150").

The display reads "RESULT: OK", and the machine shipment control data is updated.

◇ ***REFERENCE*** ◇

The value that has been set in the "FORMAT" menu becomes ineffective when the machine is rebooted. You must perform "BACKUP" of the scanning optics data if you want to keep the setup value effective after reboot.

■ Display

```
|SCN>FMT>OPT>1 ..................................... (4) |
|                                                        |
|INPUT OPICAL PIXELS ADJUSTMENT VALUE.                   |
|INPUT(-5.00 - +5.00):3 ............................ (5) |
|RESULT : OK                                             |
|SCN>FMT>OPT>2 ..................................... (6) |
|                                                        |
|INPUT OPICAL PIXELS ADJUSTMENT VALUE.                   |
|INPUT(0 - 500):150 ................................ (7) |
|RESULT : OK                                             |
```

[5-9] SHADING/SENSITIVITY

Makes shading and polygon corrections, or allows for the input of sensitivity data (S value).

◇ ***REFERENCE*** ◇

The value that has been set in the "SHADING/SENSITIVITY" menu becomes ineffective when the machine is rebooted. You must perform "BACKUP" of the light-collecting data if you want to keep the setup value effective after reboot.

[5-9-1] SHADING/POLYGON CORRECTION

Enables or disables shading and polygon corrections.

◇ ***REFERENCE*** ◇

Normally, the RU has "SHADING/POLYGON CORRECTION" enabled (in ON state). If you do not want to perform shading and polygon corrections, turn OFF (disable) "SHADING/ POLYGON CORRECTION".
If reading is performed with "SHADING/POLYGON CORRECTION" in OFF state, nonuniformity appears on the image even when a uniformly exposed IP is read.

■ Procedure

(1) [5] [ENT] → [9] [ENT] → [1][ENT]

(2) Choose "1" (ON).

The system then checks the setup. When the checkout process ends normally, the display reads "RESULT: OK".

◆ ***INSTRUCTION*** ◆

Once the setup has been completed, perform "BACKUP" of the light-collecting data to save the data that has been changed in a floppy disk.
If the machine is powered OFF without saving, the setup that has been done will be lost.

■ Display

```
|SCN>SS>1 ..................................................... (1) |
|                                                                  |
|0.QUIT                                                            |
|1.OFF                                                             |
|2.ON                                                              |
|SCN>SS>COL>1 ................................................. (2) |
|                                                                  |
|RESULT : OK                                                       |
```

[5-9-2] CALCULATION

Calculates correction data.

CAUTION

Pay attention to the following points when performing shading and polygon corrections.

- *Before performing any correction, remove the cassette from the RU. If the cassette remains loaded, no correction will be performed (regular reading is performed).*
- *To perform corrections, be sure to use an IP of either 14"x14" (35cm x 35cm) or 14"x17" (35cm x 43cm) size. If an IP of any other size is used, an error results.*
- *For IPs used for corrections, be sure to use IPs that have been exposed at a dose indicated in the Procedure.*
  If an IP that has not been exposed is used, an error results.

■ Procedure

(1) Uniformly expose an IP of 14"x14" (35cm x 35cm) or 14"x 17" (35cm x 43cm) size at about 1 mR.

The X-ray dose at the time of exposure should be measured (in “mR”) by use of a calibrated dosimeter.

(2) [5][ENT] → [9][ENT] → [2][ENT] → [1][ENT]

A message then appears to prompt for the input of the X-ray dose.

(3) Enter the X-ray dose measured at the time of exposure (for example, “0.9”).

The system is then ready for calculation of correction data.

To abort the process during its execution, press the [Ctrl] and [C] keys simultaneously and then press the [ENT] key.

(4) Read the IP provided at step (1), using the “SENSITIVITY” menu of “TEST”.

Shading and polygon corrections are performed, and when they end normally, the display reads “RESULT: OK”.

◆ INSTRUCTION ◆

Once the correction data calculation has been completed, perform “BACKUP” of the light-collecting data to save the data that has been changed in a floppy disk.
If the machine is powered OFF without saving, the correction result will be lost.

■ Display

```
|SCN>SS>CAL>1 ..................................................(2) |
|                                                                   |
|INPUT DOSAGE VALUE                                                 |
|INPUT(0.50 - 9.99):0.9 ........................................(3) |
|                                                                   |
|COMMAND IS IN PROGRESS. .......................................(4) |
|INTERRUPTION : HIT[^C] + ENT KEY.
|RESULT : OK
```

[5-9-3] SENSITIVITY DATA

Adjusts the S value indicated on the film.

■ Procedure: Example where when the S value of the IP exposed at the reference dose reads “25”, adjustments are made so that it reads “30”

(1) Have on hand an IP exposed at such a dose that the S value reads “25”.

Check the dose at the time of exposure by use of a calibrated dosimeter.

(2) [5][ENT] → [9][ENT] → [3][ENT]

A message then appears to prompt for the input of the S value.

(3) Enter the S value of the output image (for example, “25”).

A message then appears again to prompt for the input of the S value.

(4) Enter the S value to be expected (for example, “30”).

The sensitivity data is then adjusted, and when it ends normally, the display reads “RESULT: OK”.

To abort the process during its execution, press the [Ctrl] and [C] keys simultaneously and then press the [ENT] key.

(5) Read the IP provided in step (1).

Make sure that the S value on the output film reads “30”.

■ Display

```
|SCN>SS>3 ..................................................... (2)  |
|                                                                   |
|INPUT CURRENT S VALUE.                                             |
|INPUT(1 - 667[V]):25 ......................................... (3)  |
|                                                                   |
|INPUT EXPECTED S VALUE.                                            |
|INPUT(1 - 667[V]):30 ......................................... (4)  |
|RESULT : OK                                                        |
```

[5-9-4] HV DATA

CAUTION

This feature is for design analysis only. Do not use this feature in the market (for regular servicing purposes).

Enters an HV voltage value.

[5-9-5] PMT DATA

CAUTION

This feature is for design analysis only. Do not use this feature in the market (for regular servicing purposes).

Enters PMT data.

[5-10] DATA MANAGEMENT

Saves the scanner data into the FTP server (CL) or loads the saved scanner data.

CAUTION

Never reset the RU or power it OFF while any submenu of "DATA MANAGEMENT" is being executed.
During its execution, the RU panel blinks with an audible "beep, beep, beep, ..." alert sounded.

[5-10-1] SAVE SCN DATA FROM RAM TO FLASH & FTP-SERV

Saves the scanner data stored in the main memory into the flash memory and FTP server (CL).

[5-10-2] LOAD SCN DATA FROM FTP-SERV TO RAM & FLASH

Loads the scanner data stored in the flash memory and FTP server into the main memory.

[5-10-3] DISPLAY SCN DATA ETC

Displays a list of files that have been saved in the FTP server (CL) during the time interval between machine power ON and "[10-3] DISPLAY SCN DATA ETC" execution.

■ Procedure

(1) [5] [ENT] → [10] [ENT] → [3] [ENT] → [3] [ENT]
A file list then appears on the display.

■ Display

```
|SCN>DTM>DISP>3                                                    |
|                                                                  |
|SCN_SHDG.DAT                                                      |
|SCN_POLY.DAT                                                      |
|SCN_ISEN.DAT                                                      |
|SCN_IFMT.DAT                                                      |
|SCN_OFMT.DAT                                                      |
|SCN_LDIF.DAT                                                      |
|RESULT : OK                                                       |
```

[5-11] DIAGNOSTIC

Starts the polygon and runs a diagnostic check on the scanner.

◆ *INSTRUCTION* ◆

Execute "[5-1] INITIALIZE" before executing "[5-11] DIAGNOSTIC".

◇ *REFFERENCE* ◇

The display of the Scanner Diagnostic Status window differs depending on the software version.

■ Procedure

(1) [5] [ENT] → [11] [ENT]

The self-diagnostics result is displayed.

■ Display: For Versions A01 through A04

```
SCN>11

COMMAND IS IN PROGRESS.
                Error code      Detail code
Scanner Diagnostic Status
Main: 12241 / Sub: 000800
ERRF     :     0 / ERRBRF   :     0 / ERRIRQF  :     0
ERRLF0   :     0 / ERRLF1   :     0 / ERRLF2   :     0
ERRLF3   :     0 / ERRLF4   :     0 / ERRLF5   :     0
ERRCF0   :     0 / ERRCF1   :     0 / ERRCF2   :     0
ERRCF3   :     0 / ERRCF4   :     0 / ERRCF5   :     0
READMF   :     0 / MSINTF   :     0 / VSYNC    :     0
MSTIMEMAX: 24728 / MSMAXL   :  3166 / MSTIMEMIN: 24725 / MSMINL   :  3162
ZLTIMEMAX: 18513 / ZLMAXL   :  3162 / ZLTIMEMIN: 18512 / ZLMINL   :  3166
SEDTM    :     0 / ERSMAX   :     0 / ERSNOW   :     0
LEDDATA  :     0 / LDIFNOW  : 13066 / LDIFINT  : 12766
HVSHMONI :   502 / FCLKTM   :     0 / PORIXCREF:     0
PERCF0   :     0 / PERCF1   :     0 / PERLF0   :     0 / PERLF1   :     0
MSINTFNOW:     0
RESULT : OK
```

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■ Display: For Version A05 or Later

```
Scanner Diagnostic Status
ERRF     :     0 / ERRBRF   :     0 / ERRIRQF  :     0
ERRLF0   :     0 / ERRLF1   :     0 / ERRLF2   :     0
ERRLF3   :     0 / ERRLF4   :     0 / ERRLF5   :     0
ERRCF0   :     0 / ERRCF1   :     0 / ERRCF2   :     0
ERRCF3   :     0 / ERRCF4   :     0 / ERRCF5   :     0
READMF   :     0 / MSINTF   :     0 / VSYNC    :     0
MSTIMEMAX: 24732 / MSMAXL   : 15073 / MSTIMEMIN: 24728 / MSMINL   : 15006
ZLTIMEMAX: 19316 / ZLMAXL   : 15028 / ZLTIMEMIN: 19315 / ZLMINL   : 15001
SEDTM    :     0 / ERSMAX   :     0 / ERSNOW   :     0
LEDDATA  :     0 / LDIFNOW  : 12466 / LDIFINT  : 12100
HVSHMONI :   496 / FCLKTM   :     0 / PORIXCREF:     0
PERCF0   :     0 / PERCF1   :     0 / PERLF0   :     0 / PERLF1   :     0
MSINTFNOW:     0
SUB-ERROR CODE:000800
RESULT : 12241
                Detail code
                Error code
```

FR6H3090.EPS

[5-12] VIRTUAL IMAGE

Causes image data to be generated.

■ Function

● LIGHT:

Inputs the light of the LED on the PMT12A board through the light-collecting guide to output an image.

It can be checked to see whether or not the cause of image abnormality is due to a failure of the scanner optics unit.

● LOG AMP:

Causes the LOG AMP on the PMT board to generate and output image data.

By using “LIGHT” and “SCN12A INPUT” in combination, it can be checked to see whether or not the cause of image abnormality is due to a failure of the light-collecting unit.

● SCN12A INPUT:

Cause the scanner board to generate image data and send the image data to the sub-CPU on the CPU12A board.

It can be checked to see whether or not the cause of image abnormality is due to an image processing error on the CPU board.

■ Procedure: Example where “LIGHT” is used to generate image data

(1) Make the RU ready for reading (with the cassette loading lamp illuminated).

(2) [5][ENT] → [12][ENT] → [1][ENT]

A menu then appears to prompt you to select the LED’s luminescence quantity.

(3) [1][ENT]

An image that is similar in cases where an IP exposed at the “Signal Level” dose displayed on screen is read is outputted, and when the process ends normally, the display reads “RESULT: OK”.

Output example: Uniform gray image

■ **Display: Example where “LIGHT” is used to generate image data**

```
SCN>12

 0.QUIT
 1.LIGHT
 2.LOG AMP
 3.SCN12A INPUT
SCN>VIMG>1

INPUT THE LED'S LUMINESCENCE QUANTITY.
 0.QUIT
 1.EQUIVALENT TO 0.1-0.3[mR]
 2.EQUIVALENT TO  1 - 3 [mR]
 3.LED OFF
SCN>VIMG>LED>1


LED : 0004
Signal Level : 0.15 [mR]
RESULT : OK
```

[5-12-1] LIGHT

Directs the PMT12A board LED light toward the reader and reads the LED light entered from the light-collecting guide to generate an image.

After the light is collected by a photomultiplier, the system performs image processing in the same manner as for a regular read operation.

[5-12-2] LOG AMP

Causes the logarithmic amplifier on the PMT board to generate image data and send the image data to the scanner board.

The scanner board and subsequent sections perform image processing in the same manner as for a regular read operation.

[5-12-3] SCN12A INPUT

Causes the scanner board to generate image data and send the image data to the sub-CPU on the CPU12A board.

The sub-CPU and subsequent sections perform image processing in the same manner as for a regular read operation.

[6] MECHANICAL UTILITY

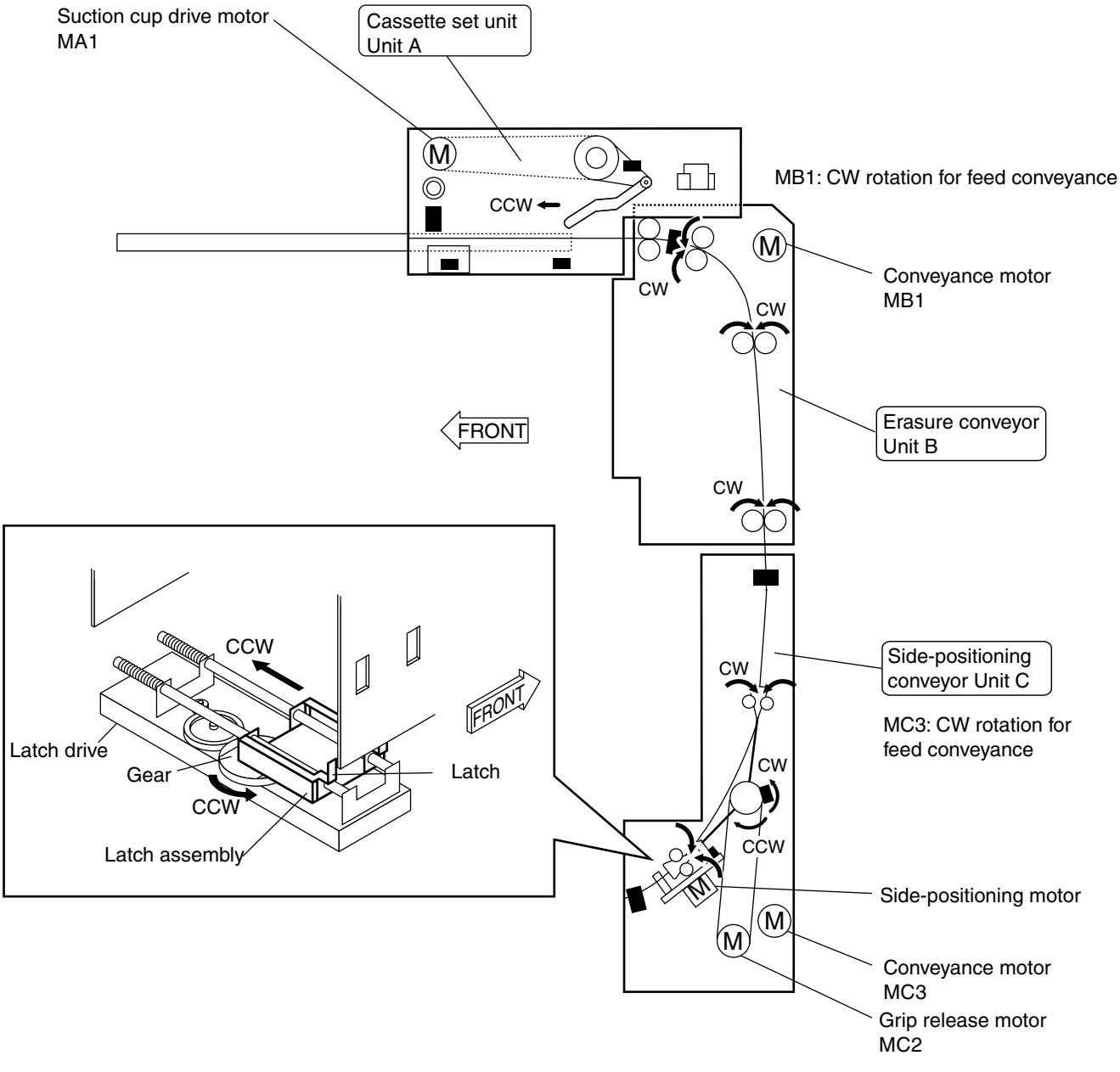
[6-1] MOTOR

Runs and stops a motor.

You can use the factory default parameter settings (rotation direction, rotation speed, stop mode, etc.) or change such default settings.

The motor names and mounting locations are indicated below:

MA1	Suction cup drive motor
MB1	Conveyance motor
MC1	Side-positioning motor
MC2	Grip release motor
MC3	Conveyance motor



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[6-1-1] Parameter setup (For version A02 through A04)

Sets the ten motor drive parameters.

Menu item	Setup item
[1] ROTATION DIRECTION	Direction of rotation (CW or CCW)
[2] TOTAL NUMBER OF PULSES	Total pulse count
[3] HI-SPEED	High-speed value
[4] LOW-SPEED	Low-speed value
[5] SLEW UP TIME	Rise time
[6] SLEW DOWN TIME	Fall time
[7] POWER-DOWN DELAY TIME	Power-down delay time
[8] MAGNETIC PHASE	Phase excitation type
[9] MOVE AND MODE	Operation/stop mode
[10] STOP MODE	Stop mode

◇ *REFERENCES* ◇

- *The motor drive parameters can be variously set for all motors. The entered settings remain effective while the power is ON.*
- *When you choose "[6-1-2] DRIVE", the system drives a motor in accordance with the parameter settings.*
- *The parameters can be restored to the factory default settings by turning OFF the power or executing "[6-1-4] LOAD PARAMETER FROM FTP-SERV.".*

■ Procedure

(1) [6] [ENT] → [1] [ENT] → [1] [ENT]

The display then prompts for the selection of a motor.

(2) Choose “1’” (MA1).

The display then prompts for the selection of a parameter.

(3) Choose “1’” (rotation direction).

The display then prompts for the input of a rotation direction.

(4) Choose “1” (CW).

The display then reads “RESULT: OK”, and the parameter that has been set becomes effective.

(5) [0] [ENT]

■ Display

```
|    MU>MTR>1 ..................................................... (1)  |
|                                                                      |
|    INPUT THE NUMBER OF MOTOR.                                        |
|    0.QUIT 1.MA1 2.MB1 3.MC1 4.MC2 5.MC3                              |
|     INPUT(0 - 5):1 ............................................. (2)  |
|                                                                      |
|    1.ROTATION DIRECTION                                              |
|    2.TOTAL NUMBER OF PULSES                                          |
|    3.HI-SPEED                                                        |
|    4.LOW-SPEED                                                       |
|    5.SLEW UP TIME                                                    |
|    6.SLEW DOWN TIME                                                  |
|    7.POWER-DOWN DELAY TIME                                           |
|    8.MAGNETIC PHASE                                                  |
|    9.MOVE AND MODE                                                   |
|    10.STOP MODE                                                      |
|    >MCN>MTR>PRM>MTR>PRM>1 ...................................... (3)  |
|                                                                      |
|    INPUT THE ROTATION DIRECTION.                                     |
|    1.CW                                                              |
|    2.CCW                                                             |
|    INPUT(1 - 2):1 .............................................. (4)  |
|    RESULT : OK                                                       |
```

[6-1-1] Motor drive and stop (For A05 or later)

Drives and stops a motor.

■ Procedure

(1) [6] [ENT] → [1] [ENT] → [1] [ENT]
The display then prompts for the selection of a motor.
(2) Choose “1” (MA1).
(3) Choose “1” (DRIVE).
Motor drives.
(4) [2] [ENT]
Motor stops.
(5) [0] [ENT]

■ Display

```
|   MU>MTR>1 ..................................................... (1) |
|                                                                     |
|   INPUT THE NUMBER OF DRIVE MOTOR.                                  |
|   0.QUIT 1.MA1 2.MB1 3.MC1 4.MC2 5.MC3                              |
|   INPUT(0 - 5):1 ............................................... (2) |
|   0.QUIT                                                            |
|   1.DRIVE                                                           |
|   2.STOP                                                            |
|   INPUT(0 - 2):1 ............................................... (3) |
|   0.QUIT                                                            |
|   1.DRIVE                                                           |
|   2.STOP                                                            |
|   INPUT(0 - 2):1 ............................................... (4) |
|   RESULT : OK                                                       |
```

[6-1-2] Motor drive (for version A02 through A04)

Drives a motor.

◇ *REFERENCES* ◇

- *The system drives a motor in accordance with the parameters, if they are set as described under "[6-1-1] Parameter setup", or in accordance with the factory default parameters, if they are not set. The parameters that have been set remain effective until the system is powered OFF or reset.*
- *If you want to forcefully stop the motor during its driving, select "[6-1-3] STOP".*

■ Procedure

(1) [6] [ENT] → [1] [ENT] → [2] [ENT]

The display then prompts for the selection of a motor.

(2) Choose "1'" (MA1).

When the motor drives and stops in accordance with the parameters, the display reads "RESULT: OK".

If you want to forcefully stop the motor as in cases where the motor is driving for a long time with any of the parameters changed, enter "[3][ENT]".

(3) [3] [ENT]

The motor then comes to a stop.

■ Display

```
MU>MTR>2 ..................................................... (1)
INPUT THE NUMBER OF DRIVE MOTOR.
0.QUIT 1.MA1 2.MB1 3.MC1 4.MC2 5.MC3
INPUT(0 - 5):1 ............................................... (2)
RESULT : OK
```

[6-1-2] Parameter setup (for version A05)

☞ "[6-1-1] Parameter setup (for versions A02 through A04)"

[6-1-3] Motor stop (for version A02 through A04)

Stops a motor.

■ Procedure: Example where the rotating motor (MA1) is to be stopped

(1) [3] [ENT]
The display then prompts for the selection of a motor.

(2) Choose "1'" (MA1).
The motor then comes to a stop and the display reads "RESULT: OK".

■ Display

```
|     INPUT THE NUMBER OF DRIVE MOTOR.                                  |
|     0.QUIT 1.MA1 2.MB1 3.MC1 4.MC2 5.MC3                              |
|     INPUT(0 - 5):1                                                    |
|     RESULT : OK                                                       |
|                                                                       |
|     0.QUIT                                                            |
|     1.PARAMETER                                                       |
|     2.DRIVE                                                           |
|     3.STOP                                                            |
|     4.LOAD PARAMETER FROM FTP-SERV                                    |
|     MU>MTR>3        ..................................... (1)         |
|                                                                       |
|     INPUT THE NUMBER OF DRIVE MOTOR.                                  |
|     0.QUIT 1.MA1 2.MB1 3.MC1 4.MC2 5.MC3 6.ALL                        |
|     INPUT(0 - 6):1  ..................................... (2)         |
|                                                                       |
|     RESULT : OK                                                       |
```

[6-1-3] Parameter initialization (for version A05)

☞ "[6-1-4] Parameter initialization (for versions A02 through A04)"

[6-1-4] Parameter initialization (for version A02 through A04)

Restores the parameters to the factory default settings.

◇ ***REFERENCE*** ◇

The parameters can also be initialized by turning OFF the power.

■ Procedure

(1) [6] [ENT] → [1] [ENT] → [4] [ENT]

A prompt then appears on the display, asking whether you want to download the factory default settings for the parameters.

(2) Choose "1'" (YES).

The system then downloads the default parameter settings and the display reads "RESULT: OK".

■ Display

```
|MU>MTR>4 ..................................................... (1)  |
|                                                                   |
|ARE YOU SURE DOWN-LOAD THE MOTOR CONTROL PARAMETER?                |
|1.YES 2.NO(DEFFAULT=2):1 ..................................... (2)  |
|                                                                   |
|RESULT : OK                                                        |
```

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[6-2] ACTUATOR

Drives and stops solenoids, pump, clutch, erasure lamps, and subscanning unit motors on an individual basis.

The names and operating states of the actuators are shown below:

	Name	DRIVE	STOP
CLA1	Cassette extrusion clutch	Clutch ON	Clutch OFF
SVA1	Leak valve	IP suction released	Stopped
SOLZ1	IP stopper solenoid	Stopper protruding	Stopper retracted
SOLA1	Cassette hold solenoid	Cassette released	Cassette held
PA1	Suction pump	IP vacuum-retained	Stopped
LAMP	Erasure lamps	Lamps illuminated	Lamps extinguished
MZ1	Subscanning motor	Driven	Stopped
MZ2	Grip drive motor	Driven	Stopped
MZ3	Dust removal motor	Driven	Stopped

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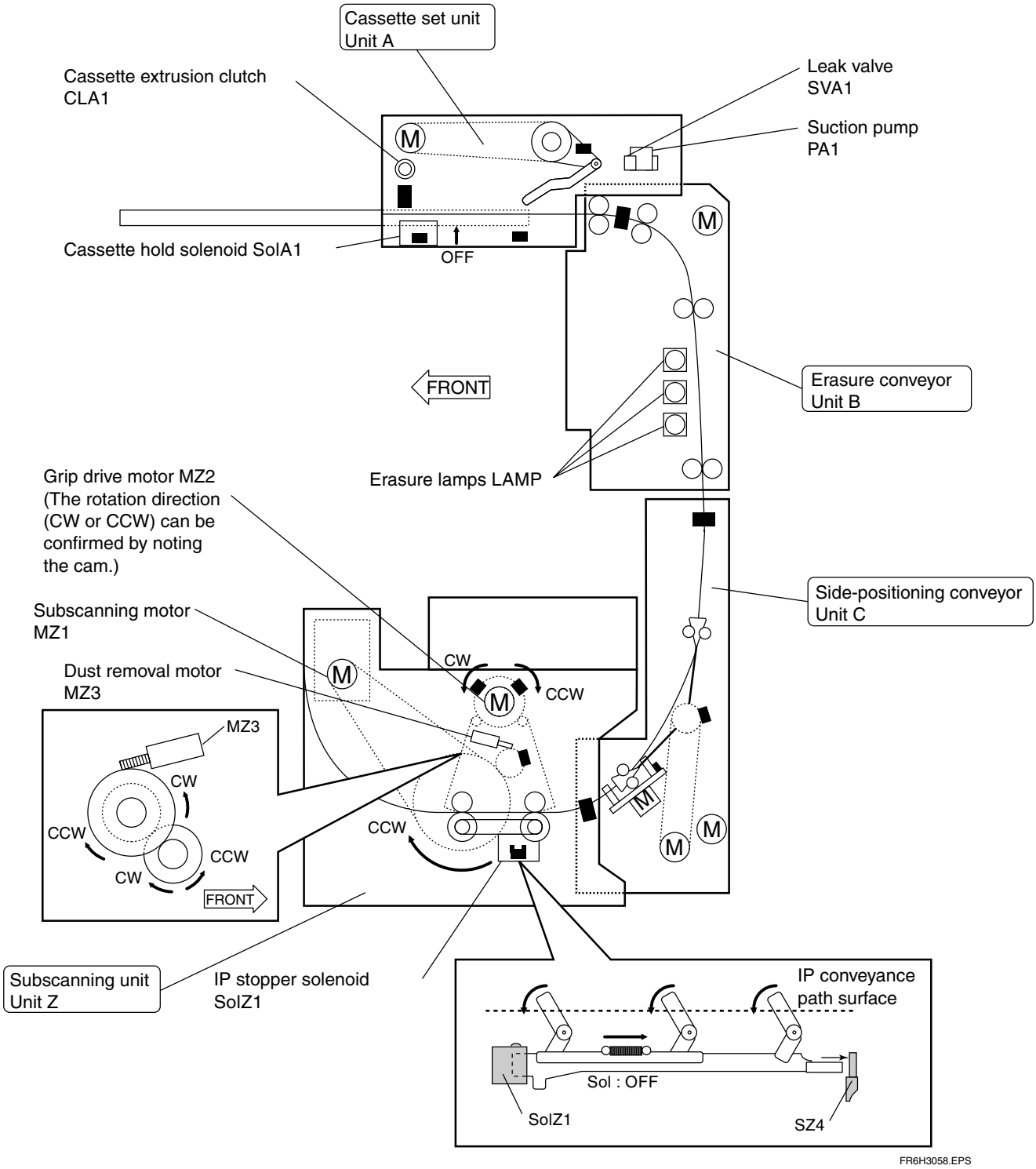
The actuator mounting locations are shown below:



[6-2-1] Actuator drive

Drives an actuator.

■ Procedure: Example where the cassette extrusion clutch (CLA1) is to be driven

(1) [6] [ENT] → [2] [ENT] → [1] [ENT]

The display then prompts for the selection of an actuator.

(2) Choose "1'" (CLA1).

The system then drives the selected actuator and the display reads "RESULT: OK".

(3) [2] [ENT]

After a little while, the selected actuator comes to a stop.

◆ *INSTRUCTIONS* ◆

- *Be sure to execute "STOP" before executing "DRIVE".*
- *The actuator will not operate even if you execute "DRIVE" in succession after executing "DRIVE".*
- *Be sure to execute "STOP" after executing "DRIVE".*

◇ *REFERENCE* ◇

The erasure lamp automatically turns OFF 20 seconds after driving.

■ Display

```
MU>ACT>4 ..................................... (1)

INPUT THE NUMBER OF ACTUATOR.
0.QUIT 1.CLA1 2.SVA1
3.SOLZ1 4.SOLA1 5.PA1 6.LAMP
7.MZ3 8.MZ2 9.MZ1(FFM) 10.FAN 11.ALL
INPUT(0 - 10) ................................ (2)

RESULT : OK
```

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[6-3] SENSOR

Monitors a sensor and displays its status (open or closed).

You can monitor a specific sensor individually or all sensors simultaneously.

The names and OPEN/CLOSE states of the sensors are indicated below:

	Name	On-screen indication: CLOSE	On-screen indication: OPEN
SA1	Cassette ejection sensor	The shutter is closed.	The shutter is open.
SA2	Cassette IN sensor	The cassette is set in position.	The cassette is not set in position.
SA3	Hold sensor	The cassette is unlocked.	The cassette is locked.
SA4	Suction cup HP sensor	The home position is reached.	The home position is not reached.
SA5	Suction sensor	An IP is vacuum-retained.	No IP is vacuum-retained.
SB1	IP sensor	An IP is present.	No IP is present.
SC1	Side-positioning HP sensor	The home position is reached.	The home position is not reached.
SC2	Grip release HP sensor	The home position is reached.	The home position is not reached.
SC3	IP sensor	An IP is present.	No IP is present.
SC4	IP sensor	An IP is present.	No IP is present.
SZ2	Driving-side grip release HP sensor	The grip is released.	The grip is activated.
SZ3	Driven-side grip release HP sensor	The grip is activated.	The grip is released.
SZ4	IP stopper HP sensor	The home position is reached.	The home position is not reached.
SZ5	Dust removal sensor	The dust remover is operating.	The dust remover is stopped.
LDSN 1-3	Lamp illumination failure sensors	The lamps are illuminated.	The lamps are extinguished.

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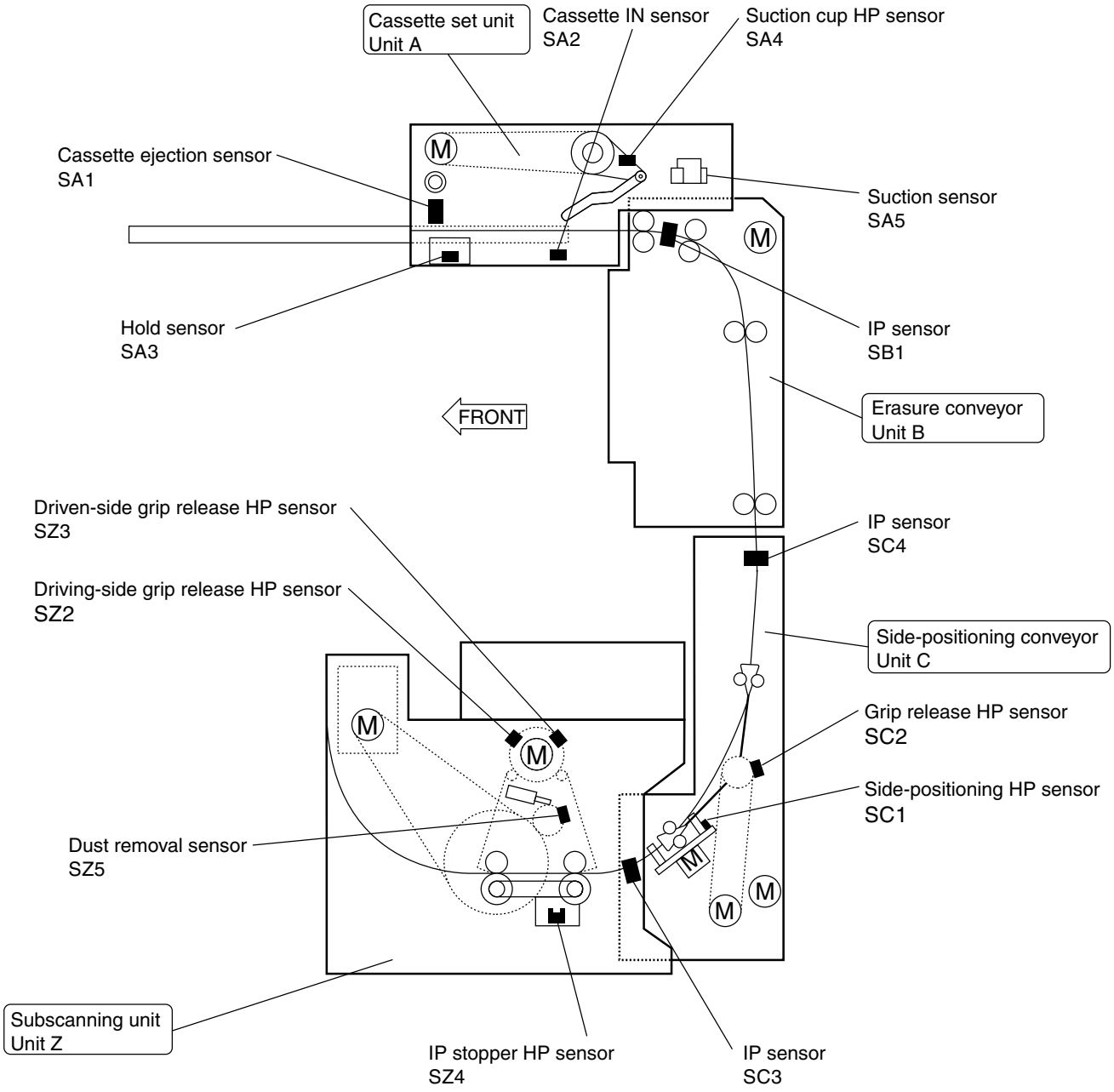
The sensor mounting locations are shown below:



LDSN1-LDSN3: Lamp illumination failure circuitry
(mounted on the INV12A board)

FR6H3059.EPS

[6-3-1] Individual sensor monitoring

Monitors a specified sensor on an individual basis.

■ Procedure: Example where the cassette ejection sensor (SA1) is to be monitored

(1) [6] [ENT] → [3] [ENT] → [1] [ENT]

The display then prompts for the selection of a sensor.

(2) Choose "1'" (SA1).

The system then indicates the status of the selected sensor (SA1) and displays the message "RESULT: OK".

■ Display

```
|   MU>SNS>1 ..................................................... (1) |
|                                                                     |
|   INPUT THE NUMBER OF SENSOR.                                       |
|   0.QUIT 1.SA1 2.SA2 3.SA3 4.SA4 5.SA5                              |
|   6.SB1 7.SC1 8.SC2 9.SC3                                           |
|   10.SC4 11.SZ2                                                     |
|   12.SZ3 13.SZ4                                                     |
|   14.SZ5 15.LDSN1 16.LDSN2 17.LDSN3                                 |
|   INPUT(0 - 17):1 ............................................ (2) |
|                                                                     |
|   Open                                                              |
|   RESULT : OK                                                       |
```

[6-3-2] Overall sensor monitoring

Monitors all the sensors simultaneously.

◇ ***REFERENCE*** ◇

This menu item monitors the sensor status that prevails when the monitoring command is issued. To monitor sensor state transitions in real time, execute "[6-3-3] REAL-TIME MONITOR ALL".

■ Procedure

(1) [6] [ENT] → [3] [ENT] → [2] [ENT]

The system then presents the status information about all sensors and displays the message "RESULT: OK".

■ Display

```
MU>SNS>2 ..................................................... (1)
Open:o/Close:x
_________________--
SSSSSSSSSSSSSLLL
AAAAABCCCCZZZZDDD
123451123423455SS
                NNN
                123
_________________-
ooxoxoxxooxoxooo

RESULT : OK
```

[6-3-3] REAL-TIME MONITOR ALL

Monitors the state transitions of all sensors in real time.

The on-screen indication changes when the monitored sensor status changes or when the sensor light path is intentionally blocked.

◇ ***REFERENCES*** ◇

- *A regular reading operation is not performed even when a cassette is inserted after the monitoring is initiated.*
- *If you want to convey the IP while monitoring the sensor, execute "[3-1-4] MONITOR READING & ERASURE".*

■ Procedure: Example where the cassette IN sensor (SA2) is to be monitored

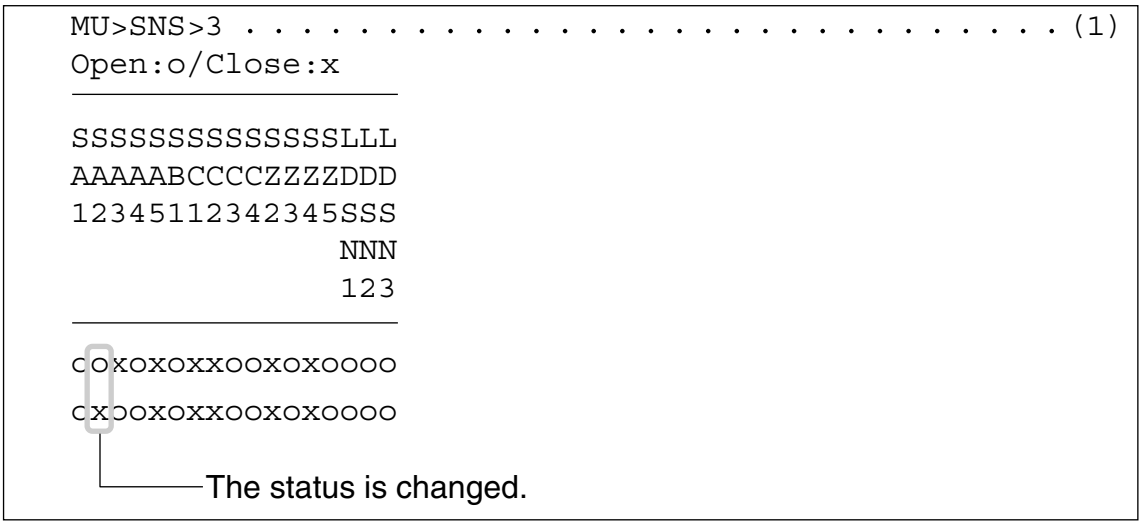
(1) [6] [ENT] → [3] [ENT] → [3] [ENT]

The display then presents the status information about all sensors.

(2) [Ctrl]+[C]+[ENT]

The monitoring ends.

■ Display



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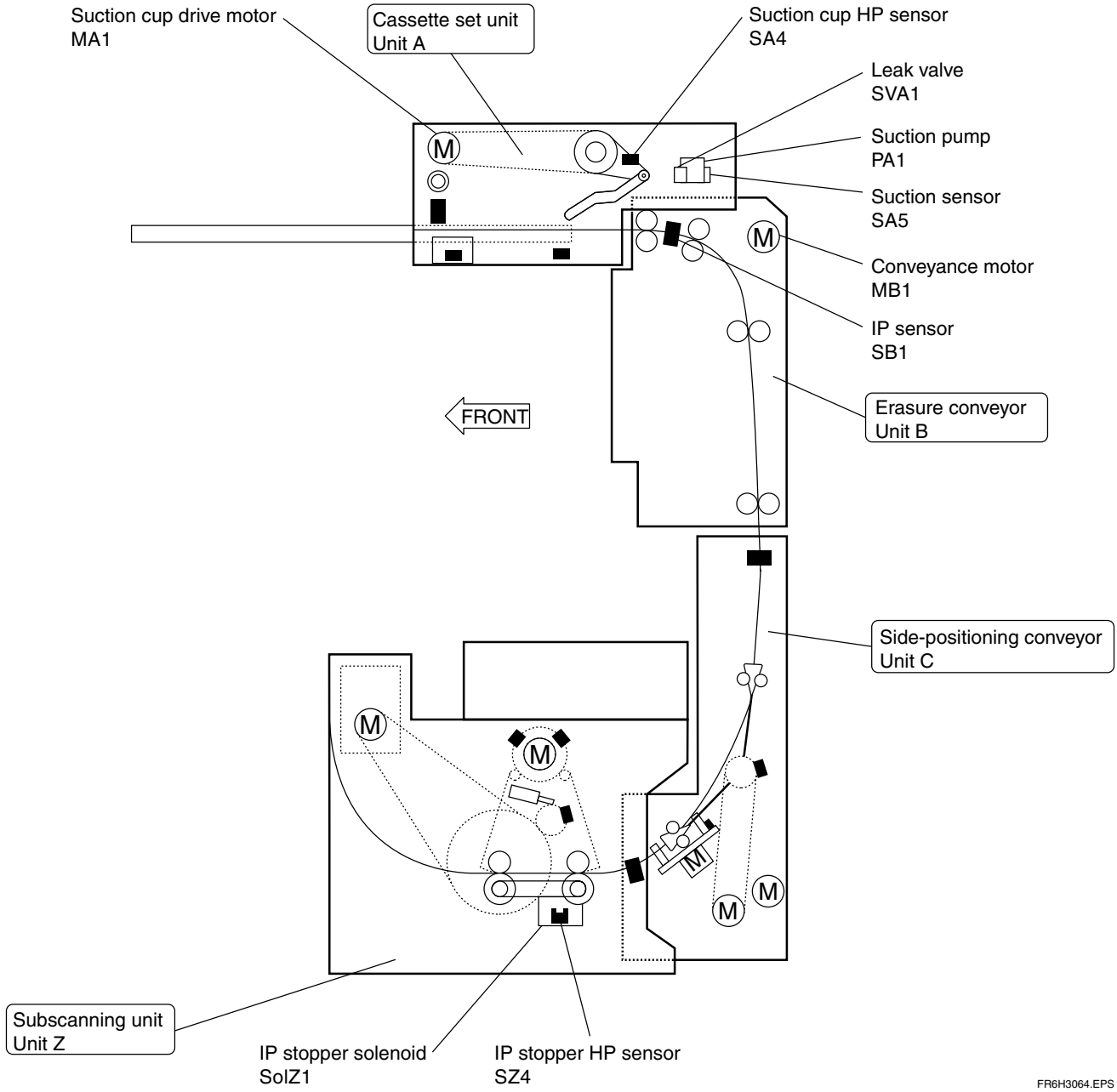
[6-4] UNIT

Runs operational checkout on the following units:

- Cassette set unit: IP feed/load operation
- Side-positioning conveyor: Side-positioning and side-positioning grip operation
- Subscanning unit: Subscanning grip operation, subscanning read operation, and IP conveyance operation

The associated unit locations and operating I/Os are shown below:



[6-4-1] IP feed/load operation checkout

Performs an IP feed operation, IP load operation, and MA1/MB2 home-positioning operation for operational checkout purposes.

■ Procedure: Example where IP feed operation is to be checked

(1) Set a cassette in position.

(2) [6] [ENT] → [4] [ENT] → [1] [ENT] → [2] [ENT]

After a little while, the IP feed operation is executed, and the display reads “RESULT: OK”.

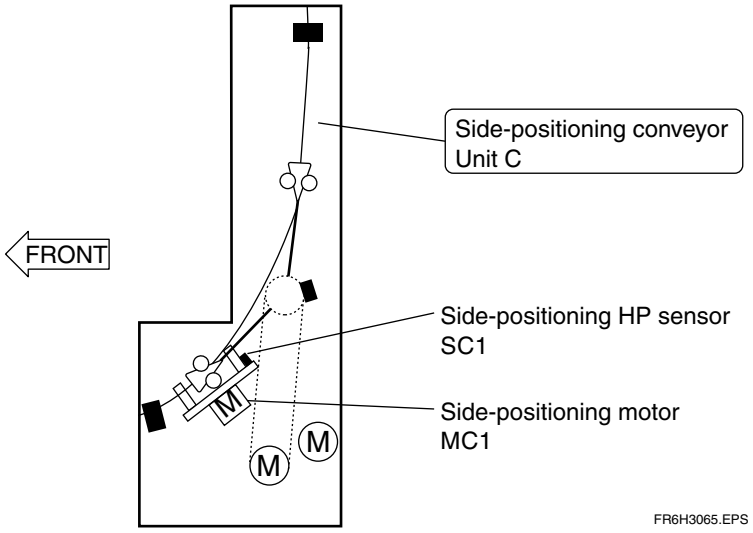
■ Display

```
|   MU>UNIT>IFL>2 ..................................... (2) |
|   COMMAND IS IN PROGRESS                                  |
|   INTERRUPTION : HIT[^C] + ENT KEY.                       |
|   RESULT : OK                                             |
```

[6-4-2] Side-positioning grip operation checkout

Returns the side-positioning conveyor grip mechanism to its HP.

The associated unit location and operating I/Os are shown below:



■ Procedure

(1) [6] [ENT] → [4] [ENT] → [2] [ENT] → [1] [ENT]

The system then returns the side-positioning conveyor grip mechanism to its HP and the display reads “RESULT: OK”.

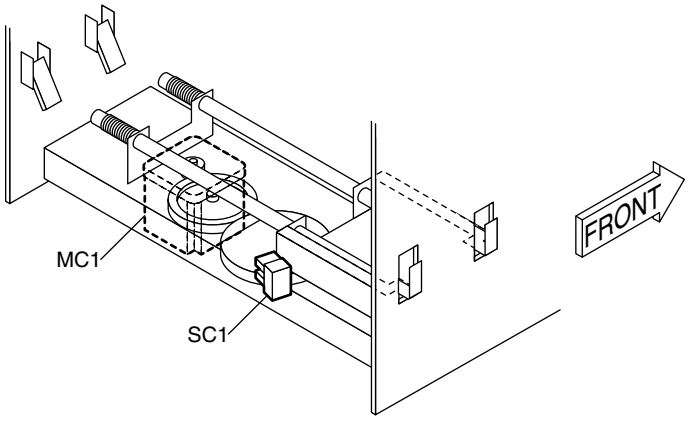
■ Display

```
|   MU>UNIT>SPG>1 ..................................... (1) |
|                                                           |
|   COMMAND IS IN PROGRESS                                  |
|   RESULT : OK                                             |
```

[6-4-3] Side-positioning operation checkout

Returns the side-positioning mechanism of the side-positioning conveyor to the HP.

The associated unit location and operating I/Os are shown below:



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■ Procedure

(1) [6] ENT] → [4] [ENT] → [3] [ENT] → [1] [ENT]

The system then returns the side-positioning mechanism of the side-positioning conveyor to the HP and the display reads “RESULT: OK”.

■ Display

```
|   MU>UNIT>SPU>1 ..................................... (1) |
|                                                           |
|   COMMAND IS IN PROGRESS                                  |
|   RESULT : OK                                             |
```

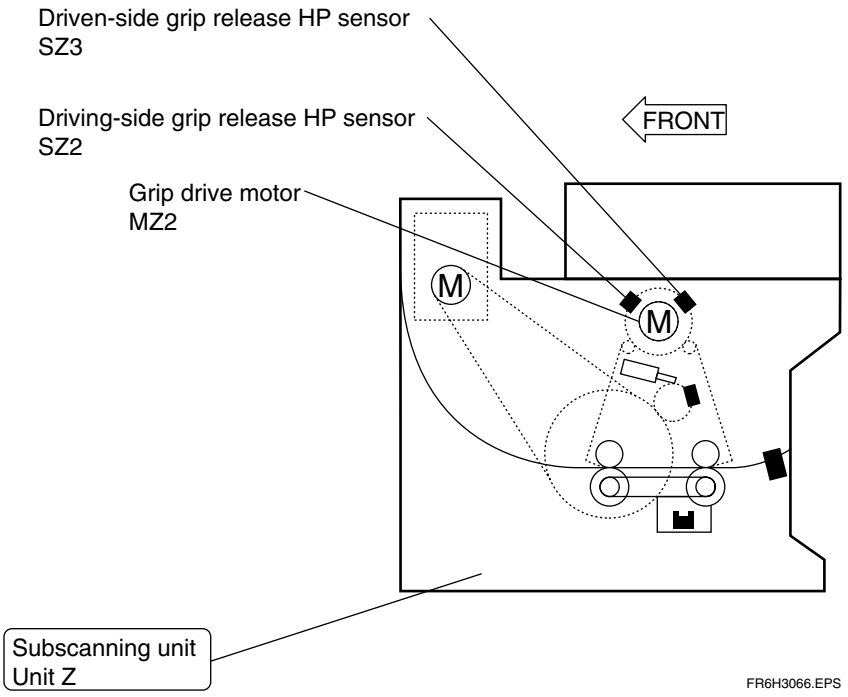
[6-4-4] Subscanning grip operation checkout

CAUTION

With software version A02 or earlier, this feature is not implemented, so it should not be used.

Returns the grip mechanism of the subscanning unit to the HP.

The associated unit location and operating I/Os are shown below:



■ Procedure

(1) [6] [ENT] → [4] [ENT] → [4] [ENT] → [1] [ENT]

The system then returns the grip mechanism of the subscanning unit to the HP and the display reads “RESULT: OK”.

■ Display

```
|    MU>UNIT>SRG>1 ..................................... (1)  |
|                                                             |
|    COMMAND IS IN PROGRESS                                   |
|    RESULT : OK                                              |
```

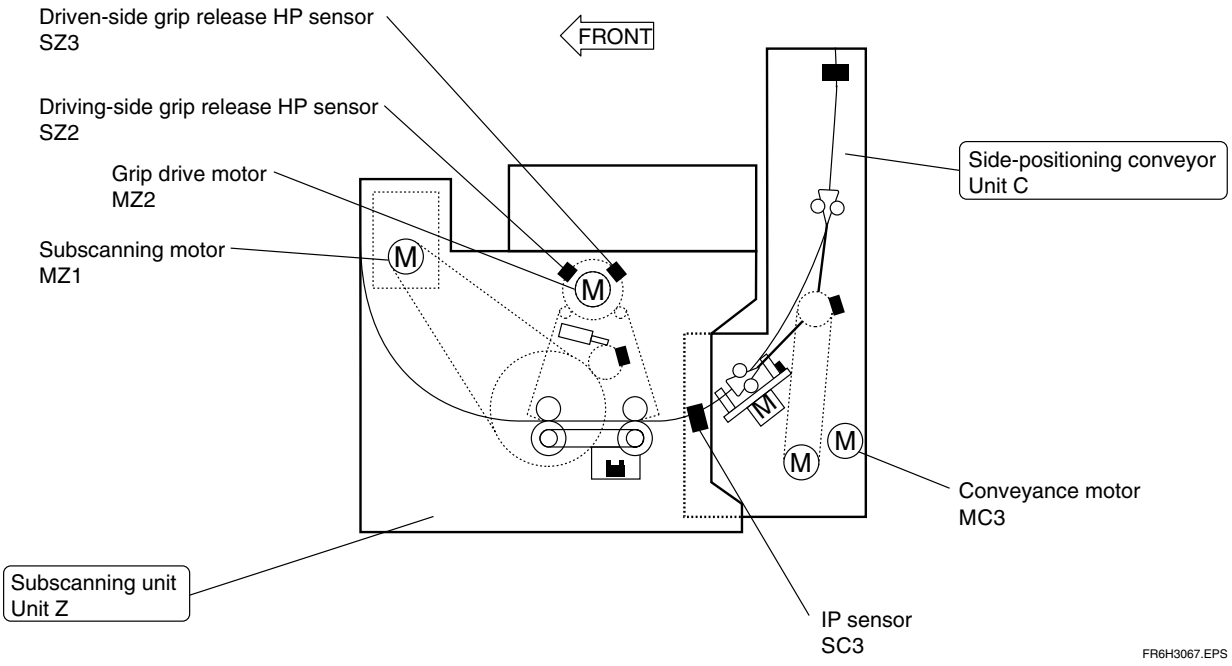
[6-4-5] Subscanning read operation checkout

CAUTION

With software version A04 or earlier, this feature is not implemented, so it should not be used. If it is used, an error results, with error code "13011" displayed.

Causes the subscanning unit to perform a read operation.

The associated unit locations and operating I/Os are shown below:



■ Procedure

(1) [6] ENT] → [4] [ENT] → [5] [ENT] → [1] [ENT]

The subscanning unit then performs a read operation and the display reads "RESULT: OK".

■ Display

```
|MU>UNIT>SRD>1 ..................................................... (1) |
|                                                                        |
|COMMAND IS IN PROGRESS                                                  |
|RESULT : OK                                                             |
```

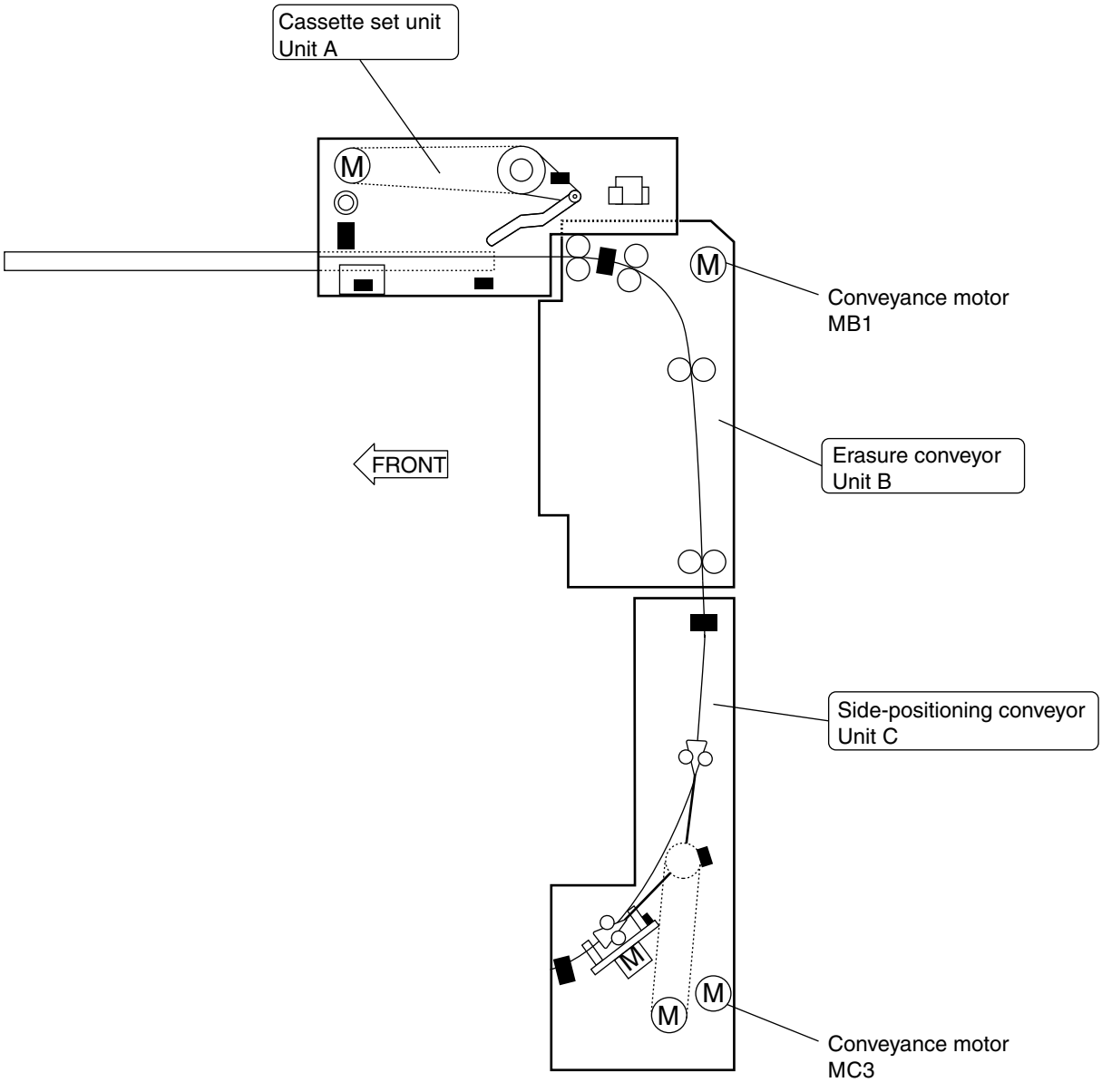
[6-4-6] IP conveyance operation checkout

CAUTION

With software version A02 or earlier, this feature is not implemented, so it should not be used.

Causes the erasure conveyor and side-positioning conveyor to perform an IP conveyance operation.

The associated unit locations and operating I/Os are shown below:



■ Procedure: For Version A03 and A04

(1) [6] [ENT] → [4] [ENT] → [6] [ENT]

The display then prompts you to specify the direction of motor rotation.

(2) Choose “1” (CW).

The erasure conveyor and side-positioning conveyor then perform an IP conveyance operation and the display reads “RESULT: OK”.

■ Display: For Version A03 and A04

```
|MU>UNIT>6 ..................................................... (1) |
|                                                                    |
|INPUT THE ROTATION DIRECTION.                                       |
|1.CW                                                                |
|2.CCW                                                               |
|INPUT(1 - 2):1 ................................................ (2) |
|                                                                    |
|COMMAND IS IN PROGRESS                                              |
|RESULT : OK                                                         |
```

■ Procedure: For Version A05 or Later

(1) [6][ENT] → [4][ENT] → [6][ENT]
The display then prompts you to specify the direction of motor rotation.

(2) Select “1” (FEED).
The display then prompts you to specify the operation (drive or stop).

(3) Select “1” (DRIVE).
The IP conveyance operation is then started.

(4) Select “2” (STOP).
The IP conveyance operation is then stopped.

(5) [0][ENT]

■ Display: For Version A05 or Later

```
|MU>UNIT>6 ..................................................... (1)  |
|                                                                     |
|INPUT THE ROTATION DIRECTION.                                        |
|0.QUIT                                                               |
|1.FEED                                                               |
|2.LOAD                                                               |
|INPUT(1 - 2):1 ................................................ (2)  |
|0.QUIT                                                               |
|1.DRIVE                                                              |
|2.STOP                                                               |
|INPUT(0 - 2):1 ................................................ (3)  |
|0.QUIT                                                               |
|1.DRIVE                                                              |
|2.STOP                                                               |
|INPUT(0 - 2):2 ................................................ (4)  |
|0.QUIT                                                               |
|1.DRIVE                                                              |
|2.STOP                                                               |
```

[6-4-7] SCANNER CLEANING (MZ3)

CAUTION

With software version A04 or earlier, this feature is not implemented, so it should not be used.

Causes the axis of the light-collecting mirror to be rotated, thereby cleaning the light-collecting face of the light-collecting guide.

The function of this menu is the same as the scanner cleaning function in the User Utility.

■ Procedure

(1) [6][ENT] → [4][ENT] → [7][ENT] → [1][ENT]

Cleaning is then performed.

■ Display

```
|MU>UNIT>SCH>1 ..................................................... (1) |
|                                                                        |
|COMMAND IS IN PROGRESS                                                  |
|RESULT : OK                                                             |
```

[7] SOFTWARE UTILITY

Displays configuration information and temporarily changes information required for network connection.

[7-1] DISPLAY CONFIGURATION

Displays the contents of configuration information in the flash memory on the CPU12A board.

■ Function

- IRSET.CFG: Displays the setup contents of IRSET.CFG
- IRSTATASUS.CFG: Displays the setup contents of IRSTATASUS.CFG.
- NETMASK: Displays the setup contents of NETMASK.
- ROUTE (GATEWAY): Displays the setup contents of ROUTE (GATEWAY).

■ Procedure: Example where “IRSET.CFG” is to be displayed

(1) [7][ENT] → [1][ENT] → [1][ENT]

The setup contents of IRSET.CFG are displayed.

■ Display: Example of “IRSET.CFG” display (For Version A04 or Earlier)

```
RU HOST NAME(SET)       :ru0
RU IP ADDRESS           :172.16.1.10
IIP IP ADDRESS          :172.16.1.20
HOST IP ADDRESS         :172.16.1.20
INFO HOST IP ADDRESS    :172.16.1.20
EQUIPMENT CODE          :A (A-Z)
ERASE MODE              :1 (0:Eracel  1:Erasel,Erase2)
IP TYPE                 :1 (0:V,VI    1:VI)
CASSETE ALARM           :1 (0:OFF     1:ON)
MODE ALARM              :1 (0:OFF     1:ON)
OVER XRAY FLG           :0 (0:Log&Message 1:Log Only 2:None)
ENDIAN                  :0 (0:Little Endian 1:Big Endian)
FRUP TIME OUT Tc        :005[s]
FRUP TIME OUT Te        :005[s]
FRUP TIME OUT Tb        :060[s]
FRUP TIME OUT Ts        :060[s]
FRUP TIME OUT Tm        :060[s]
FRUP TIME OUT Td        :180[s]
FRUP MONITOR PORT       :18016
FRUP MAIN PORT          :18017
FRUP IMAGE PORT         :18018
FRUP INFOMATION PORT    :18019
RESULT : OK
```

■ Display: Example of “IRSET.CFG” display (For Version A05 or Later)

```
[ IRSET.CFG ]
RU HOST NAME(SET)       :ru6
RU IP ADDRESS           :172.16.1.6
HOST(CL) IP ADDRESS     :172.16.1.20
INFO-HOST IP ADDRESS    :172.16.1.20
FTP-SERVER IP ADDRESS   :172.16.1.20
SECURE TELNET HOST ADDR:0.0.0.0           ('0.0.0.0'means Secure-OFF)
SECURE TELNET NET ADDR :0.0.0.0           ('0.0.0.0'means Secure-OFF)
EQUIPMENT CODE          :G (A-Z)
ERASE MODE              :1 (0:Erace1  1:Erase1,Erase2)
IP TYPE                 :1 (0:V,VI    1:VI)
CASSETE ALARM           :1 (0:OFF     1:ON)
MODE ALARM              :1 (0:OFF     1:ON)
OVER XRAY FLG           :0 (0:Log&Message 1:Log Only 2:None)
ENDIAN                  :0 (0:Little Endian 1:Big Endian)
ERASE MODE TIME OUT     :060[s]
FRUP TIME OUT Tc        :005[s]
FRUP TIME OUT Te        :005[s]
FRUP TIME OUT Tb        :060[s]
FRUP TIME OUT Ts        :000[s]

0.END 1.NEXT (DEFAULT=1) : 1


FRUP TIME OUT Tm        :060[s]
FRUP TIME OUT Td        :180[s]
FRUP TIME OUT Tm2       :030[s]
FRUP TIME OUT Tr        :030[s]
FRUP MONITOR PORT       :18016
FRUP MAIN PORT          :18017
FRUP IMAGE PORT         :18018
FRUP INFORMATION PORT   :18019
FRUP IMG HOST PORT      :18030
```

FR6H3095.EPS

[7-2] TEMPORARY SETTING

Sets information required for network connection with the CL and FTP. By restarting the RU, the setup contents temporarily become effective.

CAUTION

When you change the IP address, connection between the RU and CL will not be established unless the CL has the same IP address as that of the RU.

■ Function

- READER UNIT NAME: Temporarily changes the unit name of the RU.
- READER UNIT IP ADDR: Temporarily changes the IP address of the RU.
- HOST (CL): Temporarily changes the IP address of the CL.
- INFO-HOST IP ADDR: Temporarily changes the IP address of the host.
- FTP-SERV IP ADDRESS: Temporarily changes the IP address of the FTP server.
- NETMASK: Temporarily changes the net mask.
- ROUTE (GATEWAY): Temporarily changes the IP address of the gateway.

■ Procedure: Example where the unit name of the RU is to be temporarily changed (for version A04 or earlier)

(1) [7][ENT] → [2][ENT] → [1][ENT]
The display prompts for the input of a unit name of the RU.

(2) Enter a new unit name (for example, “ru1”).
The unit name of the RU is temporarily changed.

■ Display: Example where the unit name of the RU is temporarily changed (for version A04 or earlier)

```
 0.QUIT
 1.READER UNIT NAME
 2.READER UNIT IP ADDR
 3.HOST(CL) IP ADDR
 4.INFO-HOST IP ADDR
 5.FTP-SERV IP ADDR
 6.NETMASK
 7.ROUTE(GATEWAY)
SU>TMPSET>1

INPUT READER UNIT NAME.
[ru0            ]:ru1
RESULT : OK
```

■ Procedure: Example where the unit name of the RU is to be temporarily changed (for version A05 or later)

(1) [7][ENT] → [2][ENT]

The setup content for each item is displayed.

(2) Enter a new unit name (for example, “ru6”) in the “Input menu TEMP. SETTING” field.

The content entered is then displayed in the “Current TEMP. SETTING” field.

◇ *REFFERENCE* ◇

To update the values in the FLASH-ROM, restart the RU.

■ Display: Example where the unit name of the RU is temporarily changed (for version A05 or later)

```
SU>2


Notes:
1)The value between [ and ] will be used for the next boot.
2)TEMP.SETTING is located on the backup-memory.

   ITEM       FLASH-ROM      Current TEMP.SETTING   Input new TEMP.SETTING
-------------------------------------------------------------------------------
RU NAME    [ru7           ] /                    :ru6
RU IP ADDR [172.16.1.6    ] /                    :
CL IP ADDR [172.16.1.20   ] /                    :
FTP-SERV.  [172.16.1.20   ] /                    :
INFO-HOST  [172.16.1.20   ] /                    :
NETMASK    [255.255.0.0   ] /                    :
ROUTE      [0.0.0.0       ] /                    :
SEC. ADDR  [0.0.0.0       ] /                    :
SEC. NET   [0.0.0.0       ] /                    :


  ITEM       FLASH-ROM       Current TEMP.SETTING
-------------------------------------------------
RU NAME     ru7             /[ru6           ]
RU IP ADDR [172.16.1.6    ] /
CL IP ADDR [172.16.1.20   ] /
FTP-SERV.  [172.16.1.20   ] /
INFO-HOST  [172.16.1.20   ] /
NETMASK    [255.255.0.0   ] /
ROUTE      [0.0.0.0       ] /
SEC. ADDR  [0.0.0.0       ] /
SEC. NET   [0.0.0.0       ] /
RESULT : OK
```

FR6H3096.EPS

[8] BACKUP MEMORY

Initializes the backup memory.

■ Procedure

(1) [8][ENT] → [1][ENT]

The display prompts you to confirm whether the backup memory is to be initialized or not.

(2) [1][ENT]

The backup memory is initialized.

■ Display

```
>8

 0.QUIT
 1.INITIALIZE
BMEM>1

ARE YOU SURE ?
 1.YES 2.NO(DEFAULT=2) : 1
RESULT : OK

 0.QUIT
 1.INITIALIZE
BMEM>
```

[9] HV ON/HV OFF

CAUTION

Before turning ON the HV switch (software switch), check to see whether the cover is installed. If the HV switch is turned ON with the cover removed, the photomultiplier will be damaged.

Turns ON and OFF the HV switch (software switch).

When "[9] HV ON/OFF" is executed, the system checks the status of the HV switch before turning ON or OFF the HV switch.

When it is turned ON, the system checks a response from the photomultiplier board and displays the result.

■ Meaning of Display

Display		Status
HV ON	➔	The HV switch is OFF.
HV OFF	➔	The HV switch is ON.